A Chronology of Major Events Affecting the National Flood Insurance Program

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Acronyms

CRS	Community Rating System
FEMA	Federal Emergency Management Agency
FHBM	Flood Hazard Boundary Map
FIA	Federal Insurance Administration
FIMA	Flood Insurance and Mitigation Administration
FIRM	Flood Insurance Rate Map
FY	Fiscal year
GAO	General Accounting Office
NFIP	National Flood Insurance Program
PL	Public Law
SFHA	Special Flood Hazard Area
TVA	Tennessee Valley Authority
USGS	United States Geological Survey
WYO	Write Your Own

Please inform Rich Tobin (rtobin@air.org) of all errors and significant omissions.

Date	
1824	In *Gibbons v. Ogden*, the U.S. Supreme Court construes the Constitution's commerce clause (Article I, Section 8) to permit the federal government to finance and construct river improvements. Within two months, Congress appropriates funds and authorizes the Corps of Engineers to remove certain navigation obstructions from the Ohio and Mississippi Rivers.
1849-50	The Swamp Land Acts of 1849 and 1850 transfer swamp and overflow land from federal control to most state governments along the lower Mississippi River on the condition that the states use revenue from the land sales to build levees and drainage channels. The Acts require no federal funds.
1853	Charles S. Ellet, Jr., a leading civil engineer, produces a congressionally mandated report on the Ohio and Mississippi Rivers, insisting that the flood problem is growing as cultivation increases. He suggests enlarging natural river outlets, constructing higher and stronger levees, and building a system of headwaters reservoirs on the Mississippi River and its tributaries. Most engineers of the period disagree.
1861	In a *Report upon the Physics and Hydraulics of the Mississippi River*, Captain Andrew A. Humphreys, Corps of Topographical Engineers, and Lieutenant Henry L. Abbott support the completion of the existing levee system and exclude alternative flood controls, partly for economic reasons. The emphasis on levees represents the primary focus of U.S. policy on flood control well into the 20th century.
1866	Captain Humphreys becomes Chief of Engineers of the U.S. Army and labors to quash opposition to the "levees-only" policy he advocates.
1879	Congress creates the Mississippi River Commission and gives it authority to survey the Mississippi and its tributaries, formulate plans for navigation and flood control, and report on the practicability and costs of the various alternative courses of action.
By 1890	The entire 700-mile, lower Mississippi Valley, from St. Louis to the Gulf of Mexico, is divided into state- and locally organized levee districts.
1891	W. J. McGee, in "The Floodplains of Rivers," published in *Forum,* XI, states that "as population has increased, men have not only failed to devise means for suppressing or for escaping this evil [flood], but have a singular short-sightedness, rushed into its chosen paths."
1913	A flood in the Ohio River Valley kills 415 people and causes about $200 million in property loss. The flood spurs public interest in flood control, leading to the creation of basin-wide levee associations and other lobbying groups.
1916	The U.S. House of Representatives' Committee on Flood Control is created. The committee becomes a forum for congressional proponents of flood control.

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1917	A Flood Control Act (PL 64-367) is approved. Congress appropriates $45 million for a long-range and comprehensive program of flood control for the lower Mississippi and Sacramento Rivers. In doing so, Congress accepts federal responsibility for flood control. The Act includes a requirement for local financial contributions in flood-control legislation and authorizes the Corps of Engineers to undertake examinations and surveys for flood-control improvements and to provide information regarding the relation of flood control to navigation, waterpower, and other uses. The Act establishes important precedents and frameworks for the Flood Control Act of 1936 (see 7/1936).
1927	The Great Mississippi River Flood shows the limits of Humphreys' "levees- only" policy. The death toll is 246 but may have reached 500, more than 700,000 people are homeless, 150 Red Cross camps care for more than 325,000 refugees, and property damage exceeds $236 million. Nearly 13 million acres of land are flooded.
5/1928	Through a new Flood Control Act (PL 70-391), Congress adopts a flood-control plan that abandons the levees-only approach. The Act commits the federal government to pay for the construction of protective measures. The nonfederal contribution is to provide rights-of-ways for the levees along the main stem. Levee districts and state governments will maintain the levees. Expenditures of $325 million are authorized.
1929	The private insurance industry abandons the coverage of flood losses.
5/1933	Congress creates the Tennessee Valley Authority (TVA) through PL 73-17 as a government corporation armed with the power to plan, build, and operate multipurpose development projects for water resources within the 40,000 square miles of the Tennessee River basin.
1933	In response to a major earthquake in California, and contrary to past traditions, Congress enacts legislation to provide direct assistance to private citizens suffering disaster damage by issuing federal loans through the Reconstruction Finance Corporation.
4/1934	In response to several disasters that befell communities in disparate parts of the country, Congress enacts PL 73-160, which makes $5 million in loans available to victims of all natural disasters, including floods.

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7/1936	The Flood Control Act of 1936 (PL 74-738) provides for the construction of approximately 250 projects using funds for work relief. Congress appropriates $310 million to initiate construction and $10 million to complete examinations and surveys. The Act establishes a two-pronged attack on the problem of reducing flood damages: the Department of Agriculture will develop plans to reduce runoff and retain more rainfall and the Corps of Engineers will develop engineering plans for downstream projects. The Act represents the initial development of a national flood-control program.
1938	Harlan H. Barrows, one of 12 members on the Water Resources Committee (WRC), submits a report to the WRC President, expressing his views that good planning requires linking land and water use. A report submitted by the Ohio-Lower Mississippi Regulation Subcommittee, which Barrows chairs, states that, "if it would cost more to build reservoir storage than to prevent floodplain encroachment, all relevant factors considered, the latter procedure would appear to be the best solution."
1938	President Franklin Roosevelt forwards to the Water Resources Committee a Corps of Engineers' document calling for the construction of 81 reservoirs in the Ohio and Mississippi River basins. Barrows expresses concern that further studies are needed. The need for more studies temporarily ends further construction proposals.
1942	Gilbert White finishes *Human Adjustment to Floods: A Geographic Approach to the Flood Problem in the United States*. He advocates, "adjusting human occupancy to the floodplain, and at the same time, of applying feasible and practicable measures for minimizing the detrimental impacts of floods." He characterizes the prevailing national policy as "essentially one of protecting the occupants of floodplains against floods, of aiding them when they suffer flood losses, and of encouraging more intensive use of floodplains."
9/1950	The Disaster Relief Act of 1950 (PL 81-875) provides "an orderly and continuing means of assistance by the Federal Government to States and local governments in carrying out their responsibilities to alleviate suffering and damage resulting from major disasters," including floods. State governments must formally request the president to declare a major disaster. If granted, the federal government will then provide disaster assistance "to supplement the efforts and available resources of states and local governments in alleviating the disaster." The law creates the first permanent system for disaster relief without the need for congressional action.

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1950	An internal report from the TVA, *Major Flood Problems in the Tennessee River Basin*, notes that many communities have flood problems but because of insufficient development in flood-prone areas, flood-control projects cannot be justified. Gordon Clapp, Chairman of the TVA's Board, responds, "What should TVA do, wait for development of the floodplains so that a flood control project could be justified?" He recommends circulating the report to solicit other reactions, particularly from the Division of Regional Studies. After reviewing the report, Aldred J. Gray, director of the Division of Regional Studies, and a proponent of White's concepts, proposes a different approach to the problem. TVA and state representatives will join in a technical appraisal of the possible application of flood data to planning programs. The joint appraisal will include research into the types and forms of flood information needed by state and local planning programs and how such data can be applied to community planning, land-use controls, and capital improvement programs. During its early work in this area, TVA coins the term "floodplain management."
8/1951	Following massive flooding in Kansas and Missouri that causes more than $870 million in damage, President Harry Truman recommends the creation of a "national system of flood disaster insurance, similar to the war damage insurance of World War II." In Truman's words: "The lack of a national system of flood disaster insurance is now a major gap in the means by which a man can make his home, his farm, or his business secure against events beyond his control." Truman proposes a system of flood insurance based on private insurance with re-insurance by the federal government.
1/1952	President Truman calls for the enactment of legislation to establish a federal flood insurance program and recommends that $50 million be appropriated to create a flood insurance fund.
5/1952	President Truman submits proposed legislation to Congress to establish a national system of flood-disaster insurance. The proposed legislation would establish a maximum amount of insurance of $25,000; establish rates to cover all expenses, including a proper reserve for losses; and authorize federal agencies that make or guarantee loans to require borrowers to purchase flood insurance where it is available.

Date	
1953	The TVA embarks on a pioneering cooperative program to tackle local flood problems. In cooperation with each of the states in the Tennessee River's watershed, they prepare an initial list of 150 communities with significant flood problems and agree on an order for undertaking studies to identify flood hazards. Communities having the most urgent need can request a study of their flood problems from the TVA, which will fund the process. This offer, however, does not meet universal acceptance. Circumstances surrounding these studies significantly retard the early progress of TVA's assistance program for floodplain management. To solve this impasse, two hypothetical floods are computed: the "maximum probable" and the "regional." The TVA uses the maximum probable flood to design flood-control works. This leads to development of a model by the TVA's engineers that is large enough to use in planning and that state planners believe to be fair and reasonable. The model is based on actual flood occurrences near the studied streams. The TVA's flood-hazard information reports developed during this period do not change substantially until the mid-1970s.
8/1954	The Watershed Protection and Flood Prevention Act (PL 83-566) authorizes flood-protection structures in upstream watersheds (defined as smaller than 250,000 acres). The Act also authorizes the U.S. Department of Agriculture's Soil Conservation Service (now the Natural Resources Conservation Service) to participate in comprehensive watershed management projects in cooperation with states and their subdivisions.
1954	Walter B. Langbein, an employee of the U.S. Geological Survey (USGS), designs a report format consisting of a map with pertinent text in the margins. This report becomes the Hydrologic Investigations Atlas No. 1 (HA-1). This successful format is often repeated in following years.
6/1955	PL 84-71, the Coastal and Tidal Areas – Survey – Damages Act, requires the Corps of Engineers to conduct a study of the behavior and frequency of hurricanes on the eastern and southern coasts and to assess "possible means of preventing loss of human lives and damages to property…"
1955	William G. Hoyt and Walter B. Langbein, two noted hydrologists, endorse White's concepts in their book, *Floods,* which traces the evolution of public flood-control policies, describes current problems, and suggests desirable changes. White characterizes their work as the first to synthesize the scientific information about floods.

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1/1956	In a budget message to Congress, President Dwight Eisenhower recommends legislation to establish, on an experimental basis, an "indemnity and reinsurance program, under which the financial burden resulting from flood damage would be carried jointly by the individuals protected, the States, and the Federal Government." He requests $100 million to start the program.
8/1956	The Federal Flood Insurance Act of 1956 (PL 84-1016) directs the Housing and Home Finance Agency to establish a program of federal insurance and re-insurance against the risks of losses resulting from floods and tidal disasters. The program is intended to provide up to $10,000 in insurance per dwelling and to encourage private companies to provide coverage for risks above that amount. The cost of coverage for policyholders will be the same regardless of their location.
9/1956	The Housing and Home Finance Agency creates the Federal Flood Indemnity Administration to carry out tasks set forth in the Federal Flood Insurance Act of 1956.
1956	A study for the American Insurance Association on floods and flood losses strengthens insurers' conviction that flood insurance is not commercially feasible.
6/1957	In the absence of technical studies to determine the costs of starting a federal program for flood insurance, Congress does not appropriate any funds for the Federal Flood Indemnity Administration. As a consequence, the administration ceases to exist.
11/1958	A study by Gilbert White and his colleagues, *Changes in Urban Occupancy of Flood Plains in the United States*, reveals what had happened during the previous two decades. With land-use pressures and few incentives to stay out of potential flood zones, occupancy in these zones is increasing, even in urban areas where population is declining. Federal incentives are creating a new perception that if a serious flood hazard develops, the federal government will deal with it.
11/1958	In *Regulating Flood Plain Development*, Francis C. Murphy notes that no more than eight communities had enacted floodplain zoning before 1955. By 1958, 49 communities had ordinances. To convince others of the need for more regulations, he argues that regulating development on the floodplain is a necessary and practicable way to reduce the drain of both floods and protective measures on the national economy. He observes that governments are reluctant to enact land-use management practices because they have no flood maps or other data that indicate the extent and character of local flooding.

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12/1958	The growing loss of property and the cost of flood damage from several major hurricanes and floods convinces the Council of State Governments to recommend that one federal agency be directed by Congress to cooperate with other federal agencies and state governments to prepare reports providing data on the magnitude and frequency of floods in flood-prone areas.
1958	By this time, only seven states have enacted and are enforcing floodplain management regulations, principally for narrow-channel encroachment areas.
1958	The Corps of Engineers prepares draft legislation providing for the systematic collection and dissemination of flood data as a new Corps' mission.
8/1959	The TVA submits a report to Congress proposing a program to reduce damages associated with floods (*A Program for Reducing the National Flood Damage Potential: Memorandum of the Chairman to Members of the Committee on Public Works, U.S. Senate*, 86th Cong., 1st Sess., 31 Aug. 1959). In its letter of transmittal, the TVA states that it "believes that local communities have the responsibility to guide their growth so that their future development will be kept out of the path of floodwaters. With the States and communities of the Tennessee Valley, TVA has developed a means of putting this proposition into action." Floodplain management formally enters the federal agenda with the report's submission.
1959	*Floods at Topeka, Kansas* (HA-14) is published, the first in a series flood atlases.
1959	The USGS adopts flood-inundation maps as a means to depict information about floods. Publishing such maps, which delineate boundaries of inundated areas, provide profiles of water surfaces, and show flood-frequency relations, becomes a standard means of reporting about floods.
7/1960	Amendments to the Flood Control Act contained in PL 86-645 authorize the Corps of Engineers to compile and disseminate information on floods and flood damages at the request of a state or responsible local agency. As a result of the Act, the Corps of Engineers establishes a Flood Plain Management Service and thus promotes the use of nonstructural measures for dealing with floods.
1960	John R. Sheaffer publishes the first comprehensive study on flood proofing, *Flood Proofing: An Element in a Flood Damage Reduction Program.*
1/1961	The U.S. Senate's Select Committee on National Water Resources issues a report on floodplain management. The report becomes the means through which the concepts of floodplain management are officially recommended. The report calls for major efforts in five categories. Among these are recommendations that the federal government delineate flood-hazard areas and encourage enactment of land-use regulations for floodplains.

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1961	A flood atlas, *Floods at Boulder, Colorado* (HA-41), summarizes the results of a study of Boulder Creek in which areas inundated by floods of several frequencies were constructed synthetically from past records and physical surveys of the floodplain.
1962	The State of Washington enacts a law that provides for the establishment of flood-control zones when data are available.
8/1964	Following the "Good Friday" earthquake and subsequent seismic waves in Alaska in March, Congress ushers in the direct subsidy, or grant, as a federal disaster relief policy through PL 88-451 (the 1964 Amendments to the Alaska Omnibus Act).
1964	Gilbert White's *Choice of Adjustment to Floods*, based on a field study in LaFollette, Tennessee, analyzes existing methods and practices and addresses alternative means of dealing with flood problems by occupants, communities, and federal agencies. His study aids the ongoing discussions and debates concerning the paths that should be taken and the ways of canvassing the whole range of alternatives for achieving desirable land use.
7/1965	The Water Resources Planning Act of 1965 (PL 89-90) creates the Water Resources Council (WRC), an independent agency composed of the secretaries of federal agencies with responsibilities for water resource management. Its purpose will be to study, coordinate, and review water and related land resource requirements, policies, and plans.
11/1965	The Southeast Hurricane Disaster Relief Act (PL 89-339) is passed in response to Hurricane Betsy and other hurricanes, which devastated the south in 1963 and 1964. The Act mandates the Secretary of the Department of Housing and Urban Development to "undertake an immediate study of alternative programs which could be established to help provide financial assistance to those suffering property losses in floods and other natural disasters, including alternative methods of Federal disaster insurance…"
1965	The TVA has prepared 92 reports on floodplains covering 112 communities. Forty-three of these communities have officially adopted floodplain regulations in their zoning ordinances, subdivision regulations, or both.
1965	California encourages "local levels of government to plan land use regulations to accomplish floodplain management and to provide state assistance and guidance as appropriate."
1965	The Bureau of the Budget's Task Force on Federal Flood Control Policy is established. It represents a significant step toward a unified federal policy for managing the nation's floodplains.

Date	
1965	The National Association of Insurance Commissioners' Flood and Hurricane Committee and National All-Industry Flood Insurance Committee are created.
8/1966	The Task Force on Federal Flood Control Policy, with Gilbert White as chair, issues *A Unified National Program for Managing Flood Losses* (U.S. House of Representatives, House Document 465, 89th Cong., 2nd Sess.). The report examines ways in which the federal government can decrease flood losses without large expenditures for flood control. It is supportive of state and local regulation of the use of lands exposed to flood hazard. Concluding that federally subsidized insurance will provide an important incentive to local communities to participate in a flood insurance program, the report recommends a system of structural and nonstructural approaches to flood control. In addition, the report recommends that a practicable national program of flood insurance be established and calls for an integrated program to manage losses from floods that would involve federal, state, and local governments and the private sector. The report also recommends a limited, experimental test of a national flood insurance program before nationwide implementation. The report warns, however, that "if misapplied an insurance program could aggravate rather than ameliorate the flood program." The report estimates that subsidies for existing high-risk properties will be required for approximately 25 years.
8/1966	Executive Order No. 11296, *Evaluation of Flood Hazard in Locating Federally Owned or Financed Buildings, Roads, and Other Facilities, and in Disposing of Federal Lands and Properties*, is issued. It directs federal agencies to provide leadership in encouraging an effort to prevent unnecessary use of the country's floodplains and to lessen the risk of flood losses; evaluate flood hazards; and develop procedures to ensure that flood-hazard evaluations are conducted before initiating federally financed or supported actions in floodplains.

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8/1966	President Lyndon Johnson submits to Congress a feasibility study of a flood insurance program conducted by the Secretary of the Department of Housing and Urban Development and mandated by the Southeast Hurricane Disaster Relief Act (see 11/1965). The study, *Insurance and Other Programs for Financial Assistance to Flood Victims,* concludes that flood insurance is feasible and will promote the public interest. Flood insurance is viewed both as a means to help individuals bear the risks of flood damage and, equally, as a means to discourage unwise occupancy of floodplains. The report envisions a program of essentially private character but with continued large-scale participation of the federal government. The approach recommended would include subsidies of premiums for existing properties in high-risk areas. To encourage widespread purchase of flood insurance, the report further recommends that all "lending institutions entrusted with savings or deposits and under any form of Federal supervision…shall require in high-risk areas flood insurance at unsubsidized rates on all new mortgages based on new residences…."
1966	New Jersey authorizes a state agency to delineate and mark flood-hazard areas to identify reasonable and proper use of these areas according to their relative flood risk and to develop and disseminate other information on floodplains.
1966	Wisconsin enacts a comprehensive act providing for the adoption of a reasonable and effective zoning ordinance for floodplains by every county, city, and village before January 1, 1968.
5/1967	The Corps of Engineers publishes *Guidelines for Reducing Flood Damages.*
6/1967	The USGS publishes a 19-volume study of the magnitude and frequency of floods in the United States.
7/1967	Representatives of 26 federal agencies adopt a draft of *Proposed Flood Hazard Evaluation Guidelines for Federal Executive Agencies*. These guidelines deal with methodologies and standards to be used in developing information about flood hazards, including delineation of the floodplain, elevations that floods of various magnitudes would reach, flood velocities, and the probability of floods of various magnitudes. Use of the 100-year flood as the base standard is first advocated. After receiving these guidelines, the Bureau of Budget asks the Water Resources Council to conduct a more detailed review, revise where appropriate, and issue the *Guidelines* (see 9/1969).
12/1967	The Water Resources Council (WRC) publishes Bulletin No. 15, *A Uniform Technique for Determining Flood Flow Frequencies,* a study prepared by its Hydrology Committee to determine the best methods to analyze the frequency of floods. The WRC adopts the techniques presented in the bulletin for use in all federal planning involving water and related land resources and recommends their use by state and local governments and private organizations.

Date	
8/1968	The Army Corps of Engineers, which has been mapping and identifying flood-prone areas since 1962, estimates that there are about 5,000 flood-prone communities in the United States.

Date	
8/1968	The National Flood Insurance Act of 1968 (Title XII of the Housing and Urban Development Act of 1968 [PL 90-448]) creates the National Flood Insurance Program (NFIP) and the Federal Insurance Administration (FIA) within the Department of Housing and Urban Development to provide flood insurance in communities that voluntarily adopt and enforce floodplain management ordinances by June 30, 1970, that meet minimum NFIP requirements. Residents will be eligible for flood insurance after the NFIP identifies local flood-hazard areas and establishes actuarial rates. Occupants of structures in floodplains will have their premiums subsidized. Structures built in floodplains after the Act's passage will pay actuarially based premiums. Section 1360 of the 1968 Act authorizes the Secretary of the Department of Housing and Urban Development to consult with, receive information from, and enter into any agreements or other arrangements with heads of other federal departments or enter into contracts with any persons or private firms in order that he may identify and publish information with respect to all floodplain areas, including coastal areas located in the United States that have special flood hazards, within five years following the date of the Act's approval. Section 1361 authorizes the NFIP to develop criteria that states and communities can apply to deter development in flood-prone areas. The Act also requires that flood-risk zones be established in all flood-prone areas and that rates of probable flood-caused losses be estimated for the various flood-risk zones for each of these areas within 15 years (i.e., by August 1,1983) following enactment. Section 1302 (c) requires that "the objectives of a flood insurance program should be integrally related to a unified national program for floodplain management," and directs that "… the President should transmit to Congress for its consideration any further proposals for such a unified program." The Bureau of the Budget assigns responsibility to prepare such a proposal to the Water Resources Council. Section 1314 denies disaster relief to persons who could have purchased flood insurance for a year or more and did not do so. The Act creates the National Flood Insurance Fund in the Department of the Treasury. Premiums from the sales of flood insurance will be deposited into the fund, and losses, operating costs, and administrative expenses are paid out of the fund, which will operate without fiscal-year limitations. The NFIP is authorized to borrow up to $1 billion from the Department of the Treasury to cover losses that exceeds the program's revenues. Presidential approval is required for loans exceeding $500 million.

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8/1968	PL 90-448, the Urban Property Protection and Reinsurance Act of 1968 (part of the Housing and Urban Development Act of 1968), establishes the position of Federal Insurance Administrator within the Department of Housing and Urban Development.
12/1968	The Secretary of the Department of Housing and Urban Development delegates authority for administering the NFIP to the FIA.
12/1968	The industry's flood insurance pool, the National Flood Insurers Association (NFIA), authorized in accordance with sections 1331 and 1332 of the National Flood Insurance Act, is created. Administered by the Insurance Services Office, membership in the NFIA is open to all qualified companies licensed to write property insurance under the laws of any state. The companies will sell and service policies written as part of the NFIP.
1968	The USGS begins to outline approximate floodplain boundaries on topographic maps. The USGS agrees to assist the FIA in its mapping efforts by preparing detailed flood insurance studies, restudies, and limited detailed studies (completed when comprehensive studies cannot be justified).
1968	The Corps of Engineers creates a Floodplain Management Services Branch in the Planning Division of the Office of Chief of Engineers.
1/1969	The National Flood Insurance Program begins its operations.
5/1969	George K. Bernstein becomes the first Federal Insurance Administrator.
6/1969	The Department of Housing and Urban Development and the National Flood Insurers Association (NFIA) sign an agreement for the marketing of flood insurance policies and the adjustment of claims. Under the agreement, the NFIA will appoint a servicing company, generally on a statewide basis, to disseminate information on the insurance aspects of the program both to the public and to insurance agents, to process all insurance policies, and to handle the adjustment of claims for loss payments.
	The first flood insurance policies are sold.
6-8/1969	The first communities joining the NFIP become eligible for participation using data from the USGS and Corps of Engineers. Metairie, Louisiana, and Fairbanks, Alaska, enter the NFIP on June 25. Alexandria, Virginia, enters on August 22 with Flood Insurance Rate Maps (FIRMs) based on Corps of Engineers' Floodplain Information Reports. Biloxi, Mississippi and other communities along the Mississippi River become eligible for program participation at the end of 1969 with studies using data from the USGS. A FIRM is an official map of a community on which both the special hazard areas and the risk premium zones applicable to the community are delineated.

Date	
8/1969	Hurricane Camille strikes the Gulf Coast. In parts of Mississippi, water is 24 feet above the normal high tide. More than 250 people die because of the storm, which one retrospective analysis suggests may be "the most significant economic weather event in the world's history." No communities that suffer from flooding are covered by the NFIP.
8/1969	Congress approves the National Environmental Policy Act (NEPA) (PL 91-190), which declares environmental quality as a national goal and establishes a procedure to assess the environmental impacts of proposed federal projects and programs that could significantly affect the environment. NEPA lays the legislative and administrative foundation for evaluating environmental resources associated with river corridors and coastal zones.
9/1969	The Water Resources Council publishes a revised version of *Flood Hazard Evaluation Guidelines for Federal Executive Agencies* for federal agencies, states, and consultants to review through experimental use. The revised guidelines define the floodway as that portion of the floodplain needed to accommodate passage of the 1-percent annual chance flood without increasing the level of the flood by more than one foot.
12/1969	Section 408 of the Housing and Urban Development Act of 1969 (PL 91-152) provides for an "emergency program" (in contrast to the original or "regular" program) whereby limited amounts of subsidized insurance can be made available in participating communities before completion of detailed flood insurance studies and FIRMs (see 6-8/1969). The FIA will provide communities in the emergency program with Flood Hazard Boundary Maps (FHBMs). Such maps, which are based on available information, outline the areas estimated to be within the 100-year floodplain. FHBMs are less detailed than FIRMs, which are based on comprehensive flood insurance studies. A community will be eligible for the regular program when a FIRM is completed for that community. The emergency program does not affect the requirement that such communities must adopt adequate floodplain management regulations. The law also postpones until December 31, 1971, the deadline for communities to enact measures for floodplain management that are necessary for continued participation in the NFIP and revises the definition of a flood to include inundation from mudslides. The deadline is subsequently extended several times.

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12/1969	In an interpretation of congressional intent, the FIA decides to use data provided by a local community to identify and map flood-prone areas so the community can participate in the emergency program. Thus, it becomes an accepted practice for the FIA to issue a map delineating flood-hazard areas of a community if sufficient flood data exist. If sufficient flood data do not exist and there is adequate information to indicate a potential for destructive floods in a community, a map is issued that shows the entire community to be flood prone.
12/1969	Only four communities have joined the NFIP, and only 16 policies have been sold.
1/1970	Four communities are in the "regular program," 16 flood insurance policies have been sold, and $392,000 of coverage is in force.
3/1970	NFIP regulations are published in the *Federal Register*. The regulations contain the first criteria for floodplain management. These criteria are general in nature and do not contain specific standards, as do current criteria. To maintain eligibility, participating communities must adopt measures for floodplain management compliant with these regulations no later than December 31, 1971.
12/1971	Almost 920 communities are eligible for coverage under the NFIP. More than 87,000 flood insurance policies are in effect with coverage totaling $1.4 billion.
1971	The Water Resources Council publishes the first volume of *Regulation of Flood Hazard Areas to Reduce Flood Losses*, which reports on a study that used regulations to guide adjustment of individual land uses to meet flood threats and avoid flood damages. The Council concludes that "the precise manner in which Federal flood insurance and land use controls will be integrated is unclear" and further notes that flood insurance "will not be an adequate substitute for guiding new development or regulating existing development in flood hazard areas." The report includes draft statutes and local ordinances for regulation of land uses in riverine and coastal flood hazard areas.
5/1972	The Water Resources Council, after receiving comments on their use (see 7/1967), further revises and publishes *Flood Hazard Evaluation Guidelines for Federal Executive Agencies*.
6/1972	The Corps of Engineers publishes *Flood-Proofing Regulations*. State and local officials have subsequently requested more than 100,000 copies of this document.
6/1972	When Tropical Storm Agnes strikes the East coast, fewer than 1,200 communities participate in the NFIP, with only 95,000 policies and $1.5 billion of coverage in force. Consequently, less than 1 percent of insurable damages are covered. Agnes causes $400 million in structural damage, but only $5 million is paid in flood insurance claims.

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7/1972	The NFIP's subsidized rates for flood insurance are lowered by 37.5 percent to encourage increased participation in the program.
10/1972	Congress approves the Water Pollution Control Act Amendments of 1972 (PL 92-500). Section 404 provides protection for wetlands and supplements the Corps of Engineers' existing permitting program for activities in navigable waters, pursuant to Section 10 of the Rivers and Harbors Act of 1899. That Act required permits for the discharge of dredged or fill materials into all "waters of the United States." Later court decisions interpret this provision to include most of the nation's wetlands.
10/1972	Congress passes the Coastal Zone Management Act (PL 92-583), one of several acts that emphasize protection and enhancement of environmental quality.
1972	The Water Resources Council publishes the second volume of *Regulation of Flood Hazard Areas to Reduce Flood Losses*. The volume explores in more detail techniques to regulate subdivision of lands in flood-hazard areas. Like the initial volume, the second volume contains draft regulations dealing with subdivision regulations and regulations of coastal flood hazard areas.
1972	The NFIP develops new insurance rate tables based on nationwide risk zones, which replace the former community risk zones.
4/1973	Comprehensive revisions to NFIP regulations become effective on April 1. The revisions include detailed criteria for floodplain management for communities and specific performance standards requiring the elevation or flood proofing of structures to the elevation of the 100-year flood.
5/1973	The Federal Insurance Administrator estimates that there are approximately 10,000 flood-prone communities in the United States, or about twice as many as had been estimated in 1968 (see 8/1968).
6/1973	In *Water Policies for the Future*, the National Water Commission raises concerns about the NFIP's high degree of subsidization as well as the practicality of withholding emergency relief from people who could have covered their losses by insurance but chose not to do so. The Commission further declares that the "role that flood insurance should play in a unified national program for reducing flood losses is not yet clear and there is a need for an independent study of present flood insurance legislation and activities." The report recommends increased funding for the Corps' Floodplain Management Services Program. Subsequently, the Office of Management and Budget approves more than $10 million for FY 1974 and comparable sums in the following years to fund the Corps' work on floodplain management.

Date	
6/1973	The FIA initially relied on its small in-house staff to utilize base maps provided by communities desiring to participate in the NFIP, augmented by flood data generated by the Corps of Engineers, the USGS, and others to map flood hazards. As more communities are identified as being prone to floods, and as the number of participating communities increases, the scope of the mapping task exceeds FIA's internal capabilities. Therefore, the FIA hires three engineering firms to identify communities for which flood data exist and to prepare Flood Hazard Boundary Maps (FHBMs). These firms are asked to identify communities for which flood data do not exist so that these communities can be referred to another federal agency for study and the generation of the flood data. Before 1973, flood-prone areas shown on early FHBMs are shaded, delineated in a rectilinear or "blocked out" method (i.e., straight lines following easily identifiable land features such as streets and railroads). This practice makes the maps easy for lenders, insurance agents, and other laypersons to interpret but results in an artificial representation of the true flood boundaries, which are curvilinear and reflect the topography of the land. The use of blocked out flood boundaries is standard for all NFIP mapping until the passage of the Flood Disaster Protection Act (PL 93-234) in December 1973, which makes artificial rectilinear flood boundaries unacceptable, especially for large, undeveloped tracts of land.
7/1973	In *Actions Needed to Provide Greater Insurance Protection to Flood Prone Communities*, the General Accounting Office (GAO) reports that the FIA has no monitoring system to determine whether communities are effectively enforcing the floodplain management regulations they have adopted.
12/1973	The NFIP estimates that there are approximately 13,600 flood-prone communities in the United States (see 8/1968 and 5/1973).

Date

12/1973 The Flood Disaster Protection Act of 1973 (PL 93-234) amends the National Flood Insurance Act of 1968. The new Act, effective in March 1974:

- Increases the amounts of flood insurance available to property owners.
- Requires property owners in participating communities to purchase flood insurance as a condition of receipt of federal or federally related financial assistance on or after March 2, 1974, for acquisition, construction, or improvement of structures in special flood hazard areas (SFHAs). In addition, purchase of flood insurance is required before property owners will be eligible to obtain federal disaster assistance for construction or reconstruction purposes.
- Requires the NFIP to identify, by June 30, 1974, all communities that contain areas at risk for serious flood hazard and to notify these communities that they can apply for participation in the NFIP or they will be ineligible for certain types of federal assistance in their floodplains.
- As a condition of future federal financial assistance, requires states and communities "to participate in the flood insurance program and to adopt adequate floodplain ordinances with effective enforcement provisions consistent with federal standards to reduce or avoid future flood losses." Participation must begin by July 1, 1975, or one year after notification that a community has flood-prone areas.
- Requires the FIA to consult with local officials to implement its flood-prone notification and identification procedures; to establish explicit procedures whereby communities can appeal their flood-prone identification; and to accelerate the insurance ratemaking studies.
- Allows the Department of Housing and Urban Development to implement the NFIP on an emergency basis until December 31, 1975, while it completes determinations of flood-prone areas (see 12/1969).
- Provides for grandfathering, for purposes of determining insurance rates, for structures built in flood-hazard areas before the areas are identified as such. These pre-FIRM structures are not required to comply with existing construction requirements.
- Mandates that federally regulated lending institutions cannot make, increase, extend, or renew any loan on a property located in a SFHA in a participating community without requiring flood insurance.
- Expands the definition of "flood" to include "flood-related erosion."

Date	
12/1973 continued	• Repeals Section 1314 (denying disaster relief to persons who could have purchased flood insurance for a year or more and did not do so) because it is a disincentive to community participation.
	In approving PL 93-234, Congress reaffirms the use of the 100-year flood as the standard for identifying SFHAs and establishing land-use requirements. SFHA have a 1-percent chance of being flooded in any given year (100-year floodplain).
12/1973	Over 2,850 communities are participating in the NFIP.
1973	The Nixon Administration issues *New Approaches to Federal Disaster Preparedness and Assistance*. The report concludes that federal assistance typically replaces rather than supplements nonfederal efforts. In addition the report notes that federal assistance for disasters is often perceived to be sufficiently generous that "individuals, business, and communities had little incentives to take initiatives to reduce personal and local hazards" (House Document 93-100, 93rd Congress, First Session).
1973	The USGS expands aerial coverage of flood-prone area maps and pamphlets to include areas subject to future development. To guide this phase, the USGS publishes a *National Program for Managing Flood Losses: Guidelines for Preparation, Transmittal, and Distribution of Flood-Prone Area Maps and Pamphlets* to assist the Water Resources Division to prepare the maps.
1/1974	Effective January 1, 1974, rates for flood insurance are lowered to encourage wide acceptance of the new mandatory purchase requirement and to encourage increased sales of the insurance. This is the second such decrease (see 7/1972).
	More than 2,850 communities (including 2,264 in the emergency program) are participating in the NFIP. About 312,000 policyholders have about $5.5 billion of coverage.
3/1974	The Water Resources Development Act (PL 93-251) authorizes federal projects containing major "nonstructural" features. Section 73 directs all federal agencies to consider nonstructural alternatives when reviewing any project involving flood protection and to pay at least 80 percent of the cost of nonstructural flood control measures.

Date

5/1974 The Disaster Relief Act Amendments of 1974 (PL 93-288) authorize the president to make contributions to state and local governments to help repair, restore, reconstruct, or replace public facilities damaged or destroyed by a major disaster. Section 314 requires that applicants for such assistance must comply with regulations (to be developed) to assure that "such types and extent of insurance will be obtained and maintained as may be reasonably available, adequate, and necessary to protect against future loss to such property." The law prohibits the federal government from requiring "greater types and extent of insurance than are certified…as reasonable by the appropriate State insurance commissioner…."

States and communities receiving federal disaster assistance will be required to "agree that the natural hazards in the area in which the proceeds of the grants or loans are to be used shall be evaluated and appropriate action shall be taken to mitigate such hazards…."

The amendments represent the first congressional mandate for hazard mitigation as a precondition for federal disaster assistance.

6/1974 The Flood Disaster Protection Act of 1973 (see 12/1973) required that the Department of Housing and Urban Development identify all flood-prone communities and notify them of their special flood hazard areas by June 30. Of the 13,600 such communities so identified by December 1973, the FIA had provided FIRMs or FHBMs to less than two-thirds. By June 1974, an additional 2,700 communities are identified as flood-prone. Once a community is informed that it is prone to floods, it has one year to qualify for the emergency program (see 12/1969) or six months to appeal its designation as a flood-prone community.

7/1974 The FIA further reduces rates for flood insurance and introduces the direct bill system for renewal of flood insurance policies.

7/1974 The U.S. District Court for the Middle District of Pennsylvania grants a motion to dismiss a civil action filed by the Commonwealth of Pennsylvania, et al., against the United States, the Secretary of the Department of Housing and Urban Development, and the National Flood Insurers Association, alleging that the defendants negligently failed to make known the availability of flood insurance to Pennsylvanians who, as a result, suffered uninsured losses as a consequence of the June 1972 and 1973 floods in Pennsylvania. The aggregate damages suffered were alleged to be $1 billion. The U.S. Court of Appeals affirms the decision in June 1975.

Date	
8/1974	The Housing and Community Development Act of 1974 (PL 93-383) amends the National Flood Insurance Act of 1968 by adding Section 1364 (commonly known as the Jones' amendment), which requires federally regulated lenders to notify prospective borrowers of a property's location in a SFHA, and subsection (e) to Section 1307 (commonly known as the Brooks' amendment). In communities where adequate progress has been made on the construction of a federal flood-protection system that will afford protection against the 1-percent annual chance flood, the Brooks' amendment provides for the availability of flood insurance at risk premium rates that will not exceed those that would apply if such a flood-protection system had been completed.
10/1974	Due to the requirements of the Flood Disaster Protection Act of 1973 (see bullet 4 at 12/1973), the first Letter of Map Amendment (LOMA), which excludes a property from inadvertent inclusion in a SFHA, is issued. A LOMA amends an effective FIRM. The role of the three mapping contractors is expanded to process these map amendments. The first community determined not to require a detailed study (i.e., minimal conversion) is converted to the regular program. Similarly, the first community determined not to be subject to inundation by the 100-year flood (i.e., nonflood-prone conversion) joins the regular program in 1974.
11/1974	The FIA hires a contractor to develop and maintain a computerized management information system.
1974	Due to the accuracy required by the mandatory purchase requirement of the Flood Disaster Protection Act of 1973 (see 12/1973), 10,000 FHBMs must be revised to change the rectilinear boundaries of flood-prone areas to curvilinear boundaries.
1974	The first private company begins providing flood-zone determination services to lending institutions to assist them in complying with the mandatory purchase requirements contained in the 1973 Act.
2/1975	Given the large number of flood insurance studies in progress and FIA's limited staff, two engineering firms, referred to as technical evaluation contractors (TEC), are contracted to review the study products that federal agencies create and to put the NFIP's maps in standard format.

Date	
3/1975	In *National Attempts to Reduce Losses from Floods by Planning for and Controlling Uses of Flood-Prone Lands*, the GAO reports that federal agencies do not adequately evaluate flood hazards in their programs. Many of the agencies, the report notes, do not have or properly implement their flood-related procedures. In addition, the report observes, Executive Order 11296 (see 8/1966) has had limited effect in reducing flood losses due lack of implementing procedures and, among agencies that do have procedures, limited compliance.
3/1975	Proposed revisions to NFIP regulations are published in the *Federal Register*. The proposed revisions will allow minimum requirements for floodplain management to differ depending on the amount of technical data available to communities. Other proposed revisions will: allow the use, in establishing regulations, of data from other federal or state agencies or consulting services in communities where a FHBM has not yet been completed; require building permits for construction in SFHA when FHBM have been issued; require that all new construction must have the lowest floor above the 100-year flood level in communities with FHBMs and in which 100-year flood-surface elevations have been issued; and require new construction in coastal high hazard areas to keep the space below the lowest floor free from obstructions or use "breakaway walls" when 100-year flood levels have been identified.
6/1975	Of the 21,411 communities that the FIA had designated as flood-prone, 9,977 participate in the NFIP, but only 549 have FIRMs and were in the regular program.
Summer 1975	The National Flood Insurers Association hires its own staff and relocates its headquarters to suburban Washington, DC. The association assumes the functions that the Insurance Services Office previously handled and retains the servicing carrier concept.
7/1975	Flood insurance studies are produced under interagency agreement with other federal agencies through June, when the FIA enters into contracts with engineering firms to produce data for flood insurance studies.
8/1975	Over 350 communities have appealed their designation as flood-prone. Based on the appeals, 136 were found not to be flood-prone. An additional 2,445 appeals have been received but not yet processed. Further appeals are possible because not all communities have been notified of their flood-prone status.
9/1975	The GAO reports, in *Tulsa, Oklahoma's Participation in the National Flood Insurance Program*, that the FIA "does not formally monitor the flood insurance program to insure that communities enforce approved flood plain management regulations" or those of the FIA (see 7/1973). The report also notes that the GAO does "not question the validity of the 100-year flood level as the acceptable standard for flood plain management" (see 12/1973).

Date	
1975	Gilbert White founds the Natural Hazards Center at the University of Colorado, Boulder. The Center's primary goal is to strengthen communication among the researchers, individuals, organizations, and agencies that are concerned with individual and public actions to reduce damages from disasters.
1975	The Interagency Task Force on Floodplain Management is created (see Water Resources Council reorganizes, 1976).
3/1976	The Water Resources Council publishes *Guidelines for Determining Flood Flow Frequency* (Bulletin No. 17), an updated and revised Bulletin No. 15, *A Uniform Technique for Determining Flood Flow Frequencies*.
4/1976	The GAO, in *Formidable Administrative Problems Challenge Achieving National Flood Insurance Objectives*, concludes that the FIA has made considerable progress in identifying flood-prone communities and in providing them with FHBMs (see 12/1969). In contrast, the FIA has made limited progress in completing the necessary studies and moving communities unto the regular program. Delays have occurred, according to the GAO, because of: a) ineffective planning and scheduling of studies; b) delays in reviewing completed studies; and, c) ineffective coordination and use of federal resources. The FIA faces a deadline of August 1, 1983, to complete its studies on al flood-prone communities (see 8/1968). To meet this deadline, the FIA will have to increase its completion rate from about 91 studies per year to about 2,600 per year. The report also notes that the FIA still has "not established an effective system for monitoring community efforts to adopt and enforce required flood plain management regulations." Consequently, in the words of the GAO, the federal government, "though heavily subsidizing the flood insurance program…had no assurance that the communities' flood-prone lands were being developed wisely to prevent or minimize future flood losses" (see 7/1973 and 9/1975).
6/1976	The federal government shifts its fiscal year (FY), so that it will now end on September 30 instead of June 30, as had previously been the case. Thus, FY 1976 was 15 months long. Flood studies and surveys receive their greatest single-year appropriations, about $94 million. As a result, 2,300 flood insurance studies are initiated. This amount equaled the total number initiated in the previous five years.

Date	
7/1976	The Water Resources Council publishes *A Unified National Program for Floodplain Management*, which updates and revises House Document 465 (see 8/1966) in response to Section 1302 (c) of the National Flood Insurance Act of 1968. The report establishes the conceptual framework for floodplain management and recommends actions for improving such management and recommends "appropriate floodplain management programs and regulations or control measures as a prerequisite to federal expenditures for the modification of flooding on the impact of flooding." The report states that: "Delay in completion of flood insurance studies and the resultant delay of community participation in the Regular program may permit continued development and building at flood-prone locations and the subsequent grandfathering of these high risk developments under subsidized insurance rates."
12/1976	Comprehensive revisions to NFIP's requirements for floodplain management become effective on December 31. These revisions remain the basis of the NFIP's current requirements for floodplain management.
1976	The Water Resources Council reorganizes, abolishing all its technical committees. The Federal Interagency Floodplain Management Task Force succeeds the Floodplain Management Technical Committee. The task force consists of representatives from the TVA; the Departments of Agriculture, Army, Commerce, Energy, Housing and Urban Development, Interior, and Transportation; the Environmental Protection Agency; and, eventually, the Federal Emergency Management Agency (FEMA), which was created in 1979 (see 6/1978 and 4/1979). State representatives, through the Association of State Floodplain Managers, attend the meetings as observers. The task force provides continuity of communication between member agencies on issues related to floodplain management.
1976	The NFIP adopts regulations that treat states as communities and accordingly makes flood insurance available for state-owned properties in SFHA only if the state has adopted adequate regulations for the management of its floodplains. The state may also elect to self-insure its properties if suitable regulations are in place.
1976	Robert J. Hunter is appointed Federal Insurance Administrator.

Date	
5/1977	Executive Order 11988, *Floodplain Management*, revokes and supersedes Executive Order 11296 (see 8/1966), which had limited success in reducing flood losses. The new executive order directs federal agencies to assert a leadership role in reducing flood losses and losses to environmental values that floodplains serve. Federal agencies are to avoid actions in or affecting floodplains unless there are no practicable alternatives and to use the 100-year flood as the base flood standard for the NFIP. The executive order is intended, in part, to ensure that federal agencies do not undermine communities' implementation of regulations adopted to participate in the NFIP. The order directly references NFIP's criteria for floodplain management.
5/1977	Executive Order 11990, *Protection of Wetlands*, directs all Federal agencies to avoid, if possible, adverse impacts to wetlands and to preserve and enhance the natural and beneficial values of wetlands. Each agency is directed to avoid undertaking or assisting in wetland construction projects unless the head of the agency determines that there is no practicable alternative to such construction and that the proposed action includes measures to minimize harm.
8/1977	Concerned with delays in issuing flood insurance studies, the FIA decides to circumvent the state review and approval process. The states in Region V object. The FIA subsequently revises the study policy. The states' success in altering the policy change solidifies their cause and pushes them to form an association that eventually becomes the Association of State Floodplain Managers.
8/1977	The National Flood Insurers Association issues a termination notice to the arrangement with the Department of Housing and Urban Development in an attempt to bring to its attention, and that of Congress, the serious nature of the disagreements between the insurance pool and the government on issues of authority, financial control, and other operating matters.
10/1977	The FIA hires two additional engineering firms to perform technical evaluation services because of the growing backlog of flood insurance studies in progress.

Date	
10/1977	Title VII of the Housing and Community Development Act of 1977 (PL 95-128) further amends the National Flood Insurance Act of 1968 through "the Eagleton Amendment." This amendment permits federally regulated or insured lenders to make conventional loans in flood-prone areas of nonparticipating communities and to require that notification be given as to whether federal disaster assistance would be available in the event of a flood disaster. PL 95-128 also removes the prohibition against all forms of disaster assistance within the SFHA of "sanctioned" communities and imposes the ban only on federal disaster assistance related to a declared flood disaster; increases the additional limits of insurance coverage available at risk premium rates; provides additional criteria under which flood-damaged property can be eligible for purchase; and provides authority for low-interest loans for elevating structures located in floodways.
12/1977	Approximately 1.2 million flood insurance policies are in force, an increase of almost 900,000 over the number in December 1973. Community participation increases to approximately 15,000 in 1977 from approximately 3,000 in 1973.
12/1977	The Secretary of the Department of Housing and Urban Development and the National Flood Insurers Association sign an Assumption Agreement terminating the involvement of the National Flood Insurers Association in the NFIP, effective December 31, 1977.
1977	Following record floods in southwest Virginia, the TVA provides technical and financial assistance to four communities in floodplain evacuation and relocation. Local officials acquire several hundred properties, often as linear parks next to streams.
1977	Gloria Jimenez is appointed Federal Insurance Administrator.
1/1978	The federal government assumes the direct insurance writing and claims handling operation of the NFIP using an NFIP Servicing Agent to handle the sales and servicing responsibilities. Prospective policyholders continue to go through local agents and brokers to obtain their policies (see 6/1969 and 8/1977).
2/1978	The Water Resources Council publishes *Guidelines for Implementing Executive Order 11988 – Floodplain Management*. The report is designed to assist federal agencies in preparing regulations and procedures for implementing the order (see 5/1977). The document describes ways government agencies are to avoid supporting development in floodplains when a practicable alternative exists. As the *Guidelines* note, however, they "do not intend to prohibit floodplain development in all cases, but rather to create a consistent government policy against such development under most circumstances."

Date	
5/1978	In *Texas Landowners Rights Association v. Harris*, 453 F.Supp. 1025 (D.D.C. 1978), the State of Missouri, 40 political subdivisions in 12 states, and 30 individual landowners within federally designated flood zones bring suit against federal officials administering the NFIP. The plaintiffs contend that requiring local governments to adopt regulations for building in floodplains under their police powers, on pain of losing federal financial assistance for acquisition or construction purposes within nonparticipating communities, violates the Constitution's Tenth Amendment. This sanction includes denial of FHA and VA home mortgages in affected communities. The plaintiffs further argue that the severity of the sanctions is such that the "choice" represents no choice at all, but only coercion. The court rejects the plaintiffs' contention, holding that coercion is to be found only where the federal government gives the states no choice, but mandates compliance. In addition, the court rules that the NFIP's implementation is not a constitutionally prohibited taking of property without payment of just compensation. The U.S. Circuit Court for the District of Columbia (598 F.2d 311, 1979) and the U.S. Supreme Court (cert. denied, 444 U.S. 927, 100 S.Ct. 267, 1979) subsequently upholds the lower court's judgment.
6/1978	President Carter forwards Reorganization Plan No. 3 of 1978 (House Document 95-356, 95th Cong., 2nd Sess.) to Congress. The plan calls for FEMA's establishment as an independent agency within the executive branch. The new agency will coordinate federal disaster response-and-recovery efforts and consolidate the programs of five related agencies (the FIA, the Federal Disaster Assistance Administration, the Defense Civil Preparedness Agency, the Federal Preparedness Agency, and the National Fire Prevention and Control Administration). The new agency will begin to operate on April 1, 1979.
6/1978	The initial identification of flood-prone communities is essentially completed. More than 19,000 FHBMs have been produced.
6/1978	President Jimmy Carter's Water Policy Initiatives include proposals to fund the National Flood Insurance Act's Section 1362. The section allows FEMA to purchase certain insured properties that have either been substantially or repeatedly damaged and then to transfer the properties to a public agency to improve floodplain management.
10/1978	Only 2,818 of 16,116 participating communities are in the regular program; the rest remain in the emergency program (see 12/1969).
12/1978	The Corps of Engineers has completed 1,800 Floodplain Information Reports covering 3,500 communities.

Date	
3/1979	The GAO reports to the secretary of the Department of Housing and Urban Development that use of the 100-year flood "as the single national standard of regional flooding conditions has caused considerable controversy over the years." Noting that there were 127 floods between 1968 and 1978 that equaled or exceeded the 100-year flood level in 62 counties, the GAO recommends an evaluation of the 100-year flood as a national standard. This recommendation contradicts GAO's earlier conclusion (see 9/1975) that the 100-year flood standard is suitable. The same report notes continuing deficiencies in FIA's monitoring of communities' compliance with the NFIP's requirements (see (7/1973, 9/1975, and 4/1976). The GAO observed that the FIA makes relatively few visits to communities and "major differences in the approach, scope, and duration of the visits conducted by personnel from two different [FIA] regional offices."
4/1979	On April 1, the FIA and the NFIP are transferred from the Department of Housing and Urban Development to the newly created FEMA.
8/1979	FEMA publishes a proposed rule in the *Federal Register* that will allow flood-proofed residential basements in all communities. This rule is in response to demand for basements in some areas of the nation. The proposed rule is withdrawn in March 1981 after it is determined that flood-proofed basements can pose an unacceptable threat to public safety under some flooding conditions.
9/1979	An initiative to decentralize the production of maps to individual contractors is implemented. It is subsequently determined that this is not a cost-effective approach. The previous system of having the technical evaluation contractors produce the maps through printing by the Government Printing Office is re-instituted. The acquisition program for flood-damaged properties provided for in Section 1362 of the National Flood Insurance Act of 1968 is funded for the first time (see 6/1978). Just over 100 properties are acquired in FY 1980. Over the next 14 years, approximately 1,400 properties are purchased at a cost of nearly $52 million. In addition to funding for Section 1362, Congress also provides funds for the State Assistance Program to develop floodplain management capabilities.

Date	
9/1979	Hurricane Frederic strikes Gulf Shores, Alabama, and nearby coastal communities causing severe damage to structures. This results in considerable controversy about the adequacy of the NFIP's V-zone construction standards; criteria used to designate V-zones and V-zone flood insurance rates; and whether wave heights should be added to coastal base flood elevations. Note: V-zones or coastal high hazard areas are the most hazardous coastal flood zones because they are subject to high velocity wave action. V-zone designation is applied only to those areas along the coast where water depth and other conditions support at least a three-foot wave height.
9/1979	A revised version of *A Unified National Floodplain Management Program* is published and concludes that the NFIP "provides persuasive strength and beneficial emphasis to floodplain management."
9/1979	By the end of Fiscal Year 1979, nearly 16,600 communities are participating in the NFIP, with 3,381 in the program's "regular phase." There are more than 1.6 million policies in force, covering about $60 billion in property. Throughout the program's life, total claims have exceeded 146,000, and total payments to victims have exceeded $572 million.
12/1979	Approximately 1.85 million flood insurance policies are in effect, representing $74.5 billion in coverage. More claims (86,360) are filed in 1979 than in any subsequent year through 1999.
3/1980	A proposed rule is published in the *Federal Register* that would prohibit the use of solid breakaway walls to enclose areas below the base flood elevation in V-zones. In 1981, after a change in presidential administrations, the proposed rule is withdrawn after the Office of Management and Budget raises concerns that the rule revision is an unnecessary intrusion into the management of local affairs.
4/1980	Damages from Hurricane Frederic result in a decision to incorporate wave heights into base flood elevations in coastal areas. The impact of wave heights on coastal flood levels is first added to FIRM for seven communities in Alabama.
5/1980	FEMA adopts a policy that requires state and local governments to agree to pay 25 percent of the eligible costs of public assistance programs (other than individual and family grants). Prior to this time, the required nonfederal contribution was subject to negotiation between FEMA and the affected state and local governments.

Date	
6/1980	The Office of Management and Budget's memorandum, "Nonstructural Flood Protection Measures and Flood Disaster Recovery," directs that "all Federal programs that provide construction funds and long-term recovery assistance must use common flood disaster planning and post-flood recovery procedures." In response, 12 federal agencies approve an interagency agreement to provide technical assistance to states and communities for nonstructural measures to reduce flood damage in flood-recovery efforts. The agencies form an Interagency Flood Hazard Mitigation Task Force with responsibility for implementing agreement. In subsequent disasters interagency teams are sent to investigate opportunities to employ nonstructural mitigation measures and to issue recommendations before recovery and reconstruction advance to the point where such measures could not be considered.
6/1980	FIA's management explores ways in which the private insurance industry's state windpools can be used to assure prompt claims service in a major post-flood hurricane disaster. The Single Adjuster Program is established. In this voluntary program, individual windpools, or coastal plans, and the NFIP agree in advance on the use of single adjusters to adjust both the wind and water damage from hurricanes and to recommend the claim payments by each insurer for risks that both a coastal plan and the NFIP insure.
9/1980	FEMA's regulations implementing Executive Order 11988, *Floodplain Management*, and Executive Order 11990, *Protection of Wetlands*, are effective on September 9. Although the primary focus of these regulations is on disaster assistance, provisions are included to limit flood insurance coverage for certain structures in floodways and for new structures in V-zones where wave heights are not included in base flood elevations. On November 28, FEMA publishes a notice of intent not to enforce these provisions. Instead, an interim rating system is developed that includes a calculation of wave height on a case-by-case basis.
10/1980	The Engineering Scientific Data Package (ESDP) system is established to archive and retrieve selected documentation necessary to recreate the elevation information presented in a flood insurance study.
12/1980	The FIA promulgates a methodology for assessing the flood hazards unique to alluvial fans in the arid West.
1980	*Regulation of Flood Hazard Areas to Reduce Flood Losses* is revised to emphasize the lessons drawn from experiences with floodplain management in the 1970s. The *Regulation* focuses on state and local programs, including innovations that can exemplify effective reductions in flood losses in the future.

Date	
1980	The FIA pilots a centralized map information facility, which uses state-of-the-art technology to develop a centralized database of the flood zone for individual structures that could be accessed by calling a toll free number. The pilot was discontinued in 1981 because available technology was inadequate, the system was not cost-effective and the private sector was beginning to provide this service.
1/1981	In *Requests for Federal Disaster Assistance Need Better Evaluation*, the GAO recommends that FEMA "reevaluate and improve its assessment criteria" for disaster and emergency declarations. The GAO had found a "lack of consistency in the quality and methods" of assessing requests from governors for declarations.
1/1981	Rates for flood insurance are increased by 19 percent for pre-FIRM structures (i.e., structures for which construction or substantial improvement started on or before December 31, 1974, or before the effective date of a community's initial FIRM, whichever is later). The rate increase is the first in the NFIP's history. The initial legislation creating the NFIP allowed these rates to be substantially lower than actuarial rates in an effort to promote communities participation in the program. The rate increase in 1981, the first since the NFIP's creation, begins an effort to increase rates gradually to reduce, but not eliminate, the amount of subsidy and to make the NFIP self-supporting for the average historical loss year by 1988.
6/1981	An interim policy for accreditation of levees as providing 100-year protection on NFIP maps is promulgated. This policy is finalized in 1986 with its publication in the *Code of Federal Regulation*, Title 44, Chapter 1, Section 65.10 (see 10/1986).
8/1981	Section 341 of the Omnibus Budget Reconciliation Act of 1981 (PL 97-35) terminates, effective October 1, 1983, flood insurance coverage for new construction and substantial improvements of structures on undeveloped coastal barriers that the Secretary of the Department of Interior designates. FEMA participates in the Coastal Barriers Task Force the Secretary establishes to designate the undeveloped coastal barriers. The Coastal Barrier Resources Act of 1982 (PL 97-348) later overtakes and supersedes this process (see 10/1982).
8/1981	Section 1345 of the 1968 Act, governing services by the insurance industry, is amended to include subsection (c), which holds harmless insurance agents or brokers for the errors and omissions of FEMA.

Date	
8/1981	In *Till v. Unifirst Federal Savings and Loan Association* (653 F.2d 152), the U.S. Court of Appeals for the Fifth Circuit concludes that the National Flood Insurance Act does not provide an express or implied federal statutory cause of action against a federally regulated lending institution for failing to require flood insurance or to notify a prospective borrower that a dwelling is in a floodplain. In subsequent years, U.S. Courts of Appeals in the Fourth Circuit (*Arvai v. First Federal Savings and Loan Association*, 698 F.2d 683, 1983), the Seventh Circuit (*Mid-America National Bank of Chicago v. First Savings and Loan Association of South Holland*, 737 F.2d 638, 1984), and the Eighth Circuit (*Hofbauer v. Northwestern National Bank of Rochester*, 700 F.2d 1197, 1983) reach similar conclusions.
9/1981	The NFIP establishes a methodology to assess the contribution of wave run-up to flood elevations for communities along the open coast. This methodology is applied in several communities in Maine that had initiated flood insurance studies during FY 1981.
9/1981	The FIA establishes a goal for the NFIP to achieve self-supporting status for an average historical loss year by 1988. Achieving this goal would mean the elimination of subsidies for pre-FIRM properties.
9/1981	The FIA opens discussions with representatives of the insurance industry concerning re-involvement in the NFIP that ultimately develops into the Write Your Own (WYO) Program (see 10/1983).
10/1981	FEMA begins to use information on floods developed for purposes other than the NFIP (e.g., flood-flow estimates developed to size road crossings and bridges by state highway departments) as a cost-savings measure.
	A new rating system for post-FIRM V-zone buildings is implemented to reflect the additional risk of surge and wave height and to offer an individual risk-rating option. Post-FIRM properties are those for which Construction or substantial improvement started on or after the effective date of a community's initial FIRM or after December 31, 1974, whichever is later.
1981	The Water Resources Council updates Bulletin No. 17, *Guidelines for Determining Flood Flow Frequency* (Bulletin 17B of the Hydrology Committee, U.S. Water Resources Council). This document, first published in 1967 (Bulletin No. 15), is the guide most government agencies use when conducting flood-frequency studies.
1981	NFIP's premium rates are increased by 45 percent for pre-FIRM structures, as part of FEMA's effort to reduce subsidies and to make the NFIP self-supporting for an average historical loss year. Over the next seven years rates will increase by 120 percent.

Date	
1981	Jeffrey S. Bragg is appointed Federal Insurance Administrator.
4/1982	Approximately 62 percent of premiums paid for flood insurance are subsidized.
8/1982	As part of President Ronald Reagan's Task Force on Regulatory Relief, created in January 1981, the Office of Management and Budget directs FEMA to investigate whether federal agencies are complying with the requirements of Executive Order 11988, issued in May 1977. In addition, FEMA is to: a) determine what impact, if any, the executive order is having on the level of federal support in designated flood-hazard areas; and, b) review the base, or "100-year" flood standard used in implementing the executive order.
8/1982	The GAO, in *National Flood Insurance: Marginal Impact on Flood Plain Development, Administrative Improvements Needed*, concludes that FEMA needs a better monitoring program to assure that local communities are enforcing floodplain regulations. According to the report, many premiums for flood insurance are based on erroneously designated (misrated) flood zones. In addition, the report concludes that this insurance creates a "marginal added incentive for development in coastal and barrier island communities."
9/1982	Funding for the Water Resources Council ceases, although the Council is never officially dissolved.
10/1982	The Coastal Barrier Resources Act (PL 97-348) creates the Coastal Barrier Resources System (CBRS). The Act prohibits new federal expenditures (including the issuance of new federal flood insurance and most disaster assistance for new construction and substantial improvements) in designated units of the CBRS on the Atlantic and Gulf coasts on and after October 1, 1983. Existing flood insurance policies can remain in force.
1982	The third volume of *Regulation of Flood Hazard Areas to Reduce Flood Losses*, started at the time of the Water Resource Center's demise, is subsequently completed and published by the TVA. The three volumes advance the understanding and application of land-use regulations in flood- hazard areas as a principal tool in reducing vulnerability to flood risk.
1/1983	Due to what the GAO labels as data and methodological weaknesses in the determination of rate structures, the GAO finds that the NFIP has not collected sufficient premiums to cover the cost of providing insurance to almost two million policyholders. As a result, *National Flood Insurance Program: Major Changes Needed if it is to Operate without a Federal Subsidy* points out that the FIA had to borrow $854 million from the Department of the Treasury between 1970 and 1980.
2/1983	A system to maintain an inventory of levees, by community name, accredited as providing 100-year protection on NFIP maps begins.

Date	
2/1983	In *The Effect of Premium Increases on Achieving the National Flood Insurance Program's Objectives*, the GAO finds that FEMA's decision in January 1981 to raise rates for flood insurance policies has led to a decline in the total number of policies, from 2.01 million policies in the month before the rate increase to 1.86 million in November 1982. The GAO identified several additional factors, such as a decline in the housing market and a smaller number of recent floods that might explain the decrease in the number of policyholders.
4/1983	Responsibility for flood insurance studies and for the issuance of single-lot, single-structure, letters of map amendments and letters of map revisions is decentralized to FEMA's regional offices.
4/1983	In *Approaches for Converting National Flood Insurance Program Communities from the Emergency Phase to the Regular Phase*, the GAO concludes that FEMA will not meet the August 1983 deadline contained in the National Flood Insurance Act of 1968 for providing FIRM for all flood-prone communities. The GAO explains that the missed deadline is due both to the complexity of the task and that FEMA has not used less costly and time-consuming techniques to produce the maps. The GAO also notes FEMA's estimate that approximately $153 million will be required to complete the mapping effort. The GAO further observes that the imminent expiration of the emergency program in May 1983 (see 12/1969) will mean that over 290,000 policyholders will lose coverage unless Congress acts to extend the program.
9/1983	FEMA completes *The 100-year Base Flood Standard and the Floodplain Management Executive Order*, which the Office of Management and Budget had requested in August 1982 (see 8/1982). The President's Task Force on Regulatory Relief had selected Executive Order 11988 on *Floodplain Management* and the 100-year standard for review. The report concludes that both the 100-year standard and the executive order should be retained. For example, the report concludes that the 100-year base flood "is strongly supported and being applied successfully by all levels of government…and no alternatives have been identified that are superior to it…." In addition, however, the report concludes that some federal agencies have not adopted procedures to implement the executive order. Other agencies have adopted procedures, but they are not consistent with the executive order.

Date	
10/1983	In recognition of the 1968 Act's purpose that the FIA arrange for appropriate participation in the NFIP by private-sector property insurers, flood insurance becomes available from insurance companies that had entered into an arrangement with the Federal Insurance Administrator to sell and service flood insurance under the WYO Program. At the time, there were 1,897,176 policies and slightly over $111 billion of coverage in force. During the first year, 48 companies agreed to become WYO participants in FY 1984. The first WYO policies are sold in November 1983.
10/1983	The map revision and technical evaluation contractor services are consolidated and the number of technical evaluation contractors is reduced from seven to three as the requirements for the flood insurance study program are changed.
10/1983	Effective October 1, the NFIP revises the rate schedules for flood insurance premiums and makes significant amendments to flood policies. To simplify insurance ratings, the NFIP groups Zones A1 to A30 under a single set of schedules and makes a similar reduction for Zones V1 to V30. Optional, higher deductibles become available so policyholders concerned with catastrophic protection can reduce their flood insurance premiums. In addition, flood insurance policies no longer cover: • Finished walls, floors, ceilings, and other similar improvements to basement areas; • Enclosures and building components located below the lowest elevated floor of an elevated building except for the required utility connections and the footing, foundation, anchorage system, etc. required to support the elevated building; and
10/1983 continued	• Contents, building machinery and equipment located in a basement area or below the lowest elevated floor of an elevated building, except stairways not separated from the building. For buildings where construction started before this date, coverage continues for sump pumps, water tanks, oil tanks, furnaces, hot water heaters, washers, dryers, freezers, air conditioners, heat pumps, and electrical boxes.
10/1983	The FIA limits flood insurance coverage for basements to reduce future flood-claim payments. This action is based on FIA's findings that, between 1978 and 1982, the claim-loss frequency of buildings with basements was almost four times higher than the claim-loss frequency for buildings without basements. As a result of the change, the NFIP will no longer provide unlimited coverage of the contents of basements or finished walls, floors, ceilings. Coverage will continue for such items as oil tanks, furnaces, hot water heaters, heat pumps, and air conditioners. The controversial nature of the change in coverage leads to several lawsuits, which are decided in favor of the FIA, as well as a report by the GAO (see *Federal Emergency Agency's Basement Coverage Limitations*, completed in 1/1986).

Date	
11/1983	The Housing and Urban-Rural Recovery Act of 1983 (PL 98-181) extends until September 30, 1985, the deadline for the establishment of flood-risk zones in floodplain areas and requires FEMA to submit to Congress a plan for bringing all communities containing flood-risk zones into full program status by September 30, 1987. The Act also prohibits any increase in premiums charged for flood insurance before September 30, 1984, and directs FEMA to submit a report to Congress explaining the rate structure and any rate increase anticipated before October 1, 1985. FEMA subsequently notifies Congress that all remaining flood studies can be completed by 1991.
1983	The TVA publishes *Floodplain Management: The TVA Experience* to provide information about the authority's approach to working with state and local officials in floodplain management.
1983	The TVA joins with the Natural Hazards Research and Applications Information Center at the University of Colorado to evaluate the effectiveness of efforts to prevent flood damage. The Center forms an advisory group of national experts in floodplain management, develops the initial evaluation procedures, and conducts a pilot test in several area communities. The results are published in *Determining the Effectiveness of Efforts to Reduce Flood Losses: The TVA Experience*.
5/1984	The first countywide FIRM, for Marion County, Indiana, becomes effective. The FIRM shows the flood risks for all incorporated communities within the county as well as its unincorporated portions.
6/1984	A demographic survey of communities participating in the NFIP's Emergency Program identifies those communities where expected development in the floodplain would justify incurring the costs of a detailed study.
9/1984	A *Risk Studies Completion and Full Program Status Plan* is submitted to Congress by FEMA (see 11/1983). The plan identifies how cost-containment measures will be implemented to achieve the most economical conversion of about 7,000 communities to the Regular Program on or before September 30, 1991. A benefit-cost strategy is promulgated to standardize decision-making as to which communities will be converted by other means. Largely because of the results of the demographic survey completed in June and the application of benefit-cost considerations, emphasis is given to converting low-growth communities to the Regular Program through the minimal conversion process. As a result, 1,871 conversions to the Regular Program occur in FY 1984. This is the largest number of conversions in any year of the NFIP's history.

Date	
1/1985	The Map Initiatives Project is completed after more than two years of review and discussion by a task force comprised of representatives from the major user groups. Consequently, a new format is specified for NFIP maps to make them more "user-friendly." Changes include a reduction in the number of risk zones from 68 to 9; the elimination of flood-hazard identification dates; and the consolidation of essential information on flood insurance and floodplain management on one map, thus eliminating the need for separate FIRM and FHBM.
9/1985	The FIA publishes *Appeals, Revisions and Amendments to Flood Insurance Maps – A Guide for Community Officials*, a document written in lay language to explain the mechanisms for revising or amending NFIP maps. More than 12,000 copies of this manual are distributed before it is revised in January 1990.
10/1985	The first of more than 500 Limited Detail Studies (LDS) is initiated as a cost-containment measure to provide flood-risk zones and base flood-elevation information to communities that would experience low-to-moderate development pressure in their SFHA during the 15-year period beginning in 1985.
10/1985	The Community Assistance Program (CAP) is established to provide assistance on floodplain management to communities by drawing on resources in addition to FEMA's regional offices. The State Support Services Element, which replaces the State Assistance Program, uses states to provide this assistance. Similarly, the Federal Support Services Element makes use of federal agencies such as the TVA, USGS, the Corps of Engineers, and the Soil Conservation Service.
10/1985	The NFIP's Community Compliance Program (CCP) is established to provide a credible means to ensure that communities adequately enforce regulations on floodplain management adopted as a condition of participation in the NFIP. The program provides procedures for probation and suspension of communities and denial of flood insurance for individual structures under Section 1316 of the National Flood Insurance Act and builds on the mutually supportive relationship between flood insurance ratings and floodplain management.
10/1985	The Corps of Engineers' National Flood Proofing Committee is formed to advance the application of flood-proofing techniques.
1985	The TVA publishes *A Guide to Evaluate a Community's Floodplain Management Program* to document how others could use the TVA's evaluation procedures to judge community floodplain management programs.
1985	The first *Annual Report of the Association of State Floodplain Managers* summarizes activities of state initiatives and resources independent of the NFIP. The annual report represents slightly more than half the states and is not compiled through a formal survey.

Date	
1/1986	The NFIP's regulations are revised on January 1 to provide a probation procedure for participating communities that fail to adequately enforce floodplain-management measures adopted to meet NFIP criteria. As part of probation procedures, a $25 surcharge applies for any flood insurance policy newly issued or renewed on and after October 1, 1986, for any property that is located within a community that is on probation. This is intended to be an interim process, short of community suspension, to increase public awareness of the situation and to encourage community officials to take the actions necessary to comply with the NFIP's requirements for floodplain management. Revisions are also made to V-zone construction requirements and other criteria for floodplain management.
1/1986	The FIA publishes *A Standardized System for Flood Insurance Restudy Identification and Prioritization* to systemize decision-making about communities that are candidates for restudy and to assure that only cost-effective restudies are initiated.
1/1986	The FIA implements a fee-charge system for certain categories of conditional letters of map correction to recover the cost of providing engineering services to review and comment on proposed developments in participating communities' floodplains.
3/1986	A revised *Unified National Program for Floodplain Management* notes that the previous report has again become dated by the relative success and changes in federal programs and by the strengthening of floodplain management at the state and local levels. The report, building on earlier reports and subsequent legislation, directives, and activities, establishes two broad goals for floodplain management: to reduce loss of life and property from flooding and to reduce loss of natural and beneficial resources from unwise land use. The report urges that development in high hazard areas be avoided, except in instances of public interest or in the absence of a suitable alternative.
4/1986	FEMA proposes to change the process of declaring disasters; the criteria for eligibility for federal assistance; and the nonfederal responsibility for major disasters. The proposed regulations would also decrease the federal share of disaster costs to 50 percent from 75 percent. Furthermore, states would be required to meet certain economic criteria before they would be eligible to receive federal assistance and to increase their cost-sharing responsibilities, along with that of local governments, for disaster assistance. Due to strong opposition in Congress, FEMA subsequently withdraws the proposed rules.
9/1986	Harold T. Duryee is appointed Federal Insurance Administrator. He remains in this position until August 1990.

Date	
9/1986	The FIA produces the first digital FIRM, for Tulsa, Oklahoma. A five-year, $20 million program to digitize 25,000 FIRM panels for about 340 counties that account for about 75 percent of all property-at-risk begins.
10/1986	The NFIP's regulations on floodplain management are revised. Major changes affect placement of manufactured homes, mechanical and utility equipment, openings for enclosures, use of available flood data, and functionally dependent uses. The revisions also formally terminate the State Assistance Program and establish procedures for denial of insurance under Section 1316, obtaining basement exceptions, revision of flood maps, and the recognition of levees. The revisions result in the first required update of all NFIP community ordinances since the 1976 rule revisions.
10/1986	On October 1, the NFIP makes the following amendments to the standard flood insurance policy: • Buildings in the course of construction that are not walled or roofed are eligible for coverage. The standard deductible for these buildings is double the post-construction amount and buildings in selected zones with the lowest floor below the base flood elevation are not eligible. • When an insured building has been inundated by rising lake waters continuously for 90 or more days, and it appears reasonably certain that a continuation of this flooding will result in damage reimbursable under the flood policy, the insurer can pay the insured without waiting for further damage to occur. To receive payment, the insured must sign a release agreeing not to make further claims under the policy, not seek to renew the policy and not apply for NFIP insurance for a new property at the same location. • For mobile homes in mobile home parks or subdivisions, the date of construction to determine pre- or post-FIRM status is the date a mobile home is placed on its foundation.
1/1987	Effective January 1, the standard policy covers reasonable expenses incurred for the temporary removal and storage of insured property because of the imminent danger of flooding up to the amount of the minimum building deductible. The policy no longer provides coverage for the cost of repairs to protect insured property damaged by flood from further damage.
1/1987	President Ronald Reagan's proposed budget for the next fiscal year recommends that all subsidies for flood insurance be eliminated and that rates be increased in order to recover "the clearly allocable costs of flood insurance from beneficiaries." The Reagan Administration also states that flood insurance can be provided at affordable rates for homeowners by the private sector.

Date	
Spring 1987	A task force is created to investigate the feasibility of using the insurance industry's services and facilities and, if feasible, to develop procedures for implementing a Community Rating System (CRS). The CRS would recognize a community's efforts to undertake floodplain management activities beyond those required for participation in the NFIP; increase the public's awareness of flood insurance; and assist property owners, insurance agents, and lenders seeking individual property flood-risk information.
7/1987	The FIA inaugurates a Limited Map Maintenance Program (LMMP) as a cost-containment measure to process, in an expedient manner, revisions to NFIP maps that are limited in scope. Authority to task federal agencies to perform LMMP projects under interagency agreements is decentralized to FEMA's regional offices.
7/1987	The Supplemental Appropriations Act of 1987 (PL 100-71) suspends through September 30, 1988, those portions of the rule revision (of October 1, 1986) applicable to existing manufactured home parks and subdivisions. The Act also requires FEMA to prepare a report on the impact of the regulations. The report is submitted to Congress in September 1988.
10/1987	For the first time, the NFIP becomes self-supporting for the historical average loss year. For the NFIP, the intent is to generate premiums at least sufficient to cover expenses and losses relative to what is called the historical average loss year, which differs from the traditional insurance definition of solvency. During FY 1986, no taxpayer funds are required to meet the NFIP's flood insurance expenses. In addition, at the beginning of the fiscal year, the NFIP is required for the first time to pay all program and administrative expenses with funds derived from insurance premiums. Prior to this time, program costs for administrative expenses, surveys, and studies, are financed through congressional appropriations
12/1987	Approximately 2.1 million flood insurance policies are in force, representing $165 billion in coverage. The program's net operating deficit is about $652 million.
1987	Minnesota establishes a Flood Hazard Mitigation Grant Assistance Program, which will provide a 50-percent state/50-percent local, cost-share grant program for activities to reduce damages from floods.
1987	The *Unified National Program for Floodplain Management* recommends the evaluation of "floodplain management activities with periodic reporting to the public and to Congress on progress toward implementation of a unified national program for floodplain management." To implement this recommendation, the Federal Interagency Floodplain Management Task Force initiates an assessment of the nation's program for floodplain management. The national assessment provides a comparative basis for justifying program budgets and evaluating, over time, the effectiveness of various tools, policies, and planning efforts for floodplain management.

Date	
4/1988	The FIA inaugurates a fee-charge system to require certain requestors of NFIP maps to reimburse the National Flood Insurance Fund for the costs of map-ordering services. Entities required to use the NFIP maps as part of the program's implementation are exempt from these fees (i.e., local, state, and federal agencies, insurance agents, and lenders). A pilot marketing analysis is conducted to determine if map users are interested in purchasing microfilm copies of NFIP maps as opposed to purchasing these maps in hard-copy paper format. The results of this analysis identify a small market and limited interest in microfilm.
4/1988	In *Statistics on the National Flood Insurance Program*, the GAO summarizes data on the program's operations through the end of FY 1987.
5/1988	To reduce the NFIP's subsidy levels without using a rate increase, NFIP regulations are amended to increase the standard building and contents deductible for pre-FIRM properties to $1,000 from $750. Policyholders who wish to have lower deductibles are given the option to "buy back" a $500 deductible separately for building and contents coverage.
5/1988	Due to record high-water levels in the Great Lakes, the Housing and Community Development Act of 1987 (PL 100-242) amends the National Flood Insurance Act of 1968 (through what is called the "Upton-Jones amendment") to provide insurance benefits to structures in imminent danger of collapse due to coastal erosion or undermining caused by waves or water levels exceeding cyclical levels. Following a local government's condemnation of a structure, the payment from flood insurance would be 40 percent of the structure's value prior to collapse and, following demolition, 60 percent of the structure's value. The approach represents the first federal use of erosion setbacks as a tool for preventive management as part of an insurance program. The Act also authorizes the president to contribute to states and local communities up to 50 percent of the cost of measures to mitigate hazards that substantially reduce the risk of future damage or loss in any area affected by a major disaster. Contributions cannot exceed 10 percent of the Public Assistance grants made with respect to the disaster or $1 million, whichever is greater.

Date	
6/1988	The Claims Coordinating Office (CCO) is developed to facilitate the entrance of multiple WYO companies into the Single Adjuster Program. When major storm events occur, a CCO will be established within Integrated Flood Insurance Claim Offices (IFICO) to provide a central clearinghouse for loss adjuster assignments and data sharing, for the use of WYO companies, coastal plans, and certain other property insurers willing to participate in coordinating a claims-oriented response to the catastrophe. Subsequent experience indicates that IFICO handle losses efficiently while coordinating activities with private sector windpool associations, WYO companies, and FEMA's Disaster Field Office and Disaster Assistance Centers.
10/1988	The FIA restructures commissions to encourage the sale of flood insurance. The commission provisions for the WYO Program are also restructured under a program to be re-evaluated in 1990. The provisions allow for commissions equal to 14 percent of premiums with the opportunity to earn an additional commission of one-tenth of 1 percent for each 1-percent increase in a company's total policies in force up to a total commission of 17 percent of premium.
10/1988	The coverage limitation for enclosures (and contents) below an elevated structure is revised effective October 1 to apply only to elevated post-FIRM buildings (i.e., buildings for which the start of construction or substantial improvement occurred on or after the effective date of the FIRM or after December 31, 1974).
11/1988	The Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 100-707) emphasizes hazard mitigation including funds to acquire or "buyout" destroyed or damaged properties and to not rebuild in SFHAs; to rebuild in nonhazardous areas; and to reduce exposure to flood risk in reconstruction. The Act authorizes the allocation of up to 10 percent of FEMA's Public Assistance grants for hazard-mitigation projects, that are cost effective and that substantially reduce the risk of future damage, hardship, loss, or suffering. Benefit-cost analysis is the recommended approach for determining cost-effectiveness. Buyouts are also approved. When buyouts are authorized, they are available to all affected residents of a flood-damaged area. Section 404 establishes a Hazard Mitigation Grant Program. Grants are available to state and local governments and certain nonprofit organizations to implement long-term hazard mitigation measures following a presidential declaration of disaster. These measures can include projects to reduce the risk of future damage, hardship, or loss or suffering from damages. Buyouts are one type of eligible mitigation measure. Potential recipients of the grants, which can cover up to 50 percent of the costs of these activities, must maintain insurance as a condition of receipt.
1988	South Carolina acts to restrict new development along erosion-prone beachfronts.

Date	
1988	The Casualty Actuarial Society releases a "Statement of Principles Regarding Property and Casualty Insurance Ratemaking." The statement identifies and describes principles applicable to the determination and review of rates for property and casualty insurance. The principles provide the foundation for the development of actuarial procedures and standards that seek to protect the insurance system's financial soundness and to promote equity and availability for insurance consumers.
1988	The Department of the Interior estimates that not developing 39,000 acres of developable coastal barrier land proposed to be added to the Coastal Barrier Resources System (see 10/1982) will save the federal government approximately $3 billion, which includes subsidies for flood insurance.
1/1989	Two new products, the Condominium Master Policy (CMP) and the Preferred Risk Policy (PRP), become available for the first time. The CMP provides insurance coverage at a significantly reduced cost under a single policy for residential condominiums with five or more units and three or more stories located in Regular Program communities. The PRP is available to the owners of one- to four-family residential buildings located in Regular Program communities provided the buildings are located outside of SFHA and have favorable flood-loss histories. The PRP has a new simplified application form tailored to several fixed, limited-coverage combinations.
2/1989	The FIA completes its assessment of future resource requirements, including both staffing and funding levels, needed to maintain the currency and accuracy of published NFIP maps. These resource requirements, identified in *A Cost Effective Plan for Flood Studies Maintenance*, describe how the FIA will move from an "initial studies" phase to a "maintenance" phase for flood studies and surveys.
5/1989	Through the use of an interim rule, FEMA decides that federal disaster assistance to restore insurable structures in SFHAs will be reduced by the maximum amount of insurance proceeds that would have been received had a building and its contents been fully covered by a flood insurance policy. The interim rule is revoked in December 1991.
5/1989	Under the auspices of the Domestic Policy Council's Working Group on the Environment, Energy, and Natural Resources, the White House establishes an Inter-Agency Task Force on Wetlands. One of the group's primary objectives is to recommend revisions to existing presidential executive orders on wetlands protection and floodplain management (see 5/1977).
6/1989	The Enhanced Actuarial Information System is completed and used for the first time in conducting the annual review of NFIP rates.

Date	
9/1989	Hurricane Hugo strikes, wreaking havoc in the Carolinas, Puerto Rico, and the Virgin Islands. Buildings that had been built to meet the NFIP's requirements for floodplain management performed well, demonstrating the effectiveness of the requirements in reducing flood damages.
9/1989	The first major test of the Claims Coordinating Office (CCO) system occurs when a CCO is established to coordinate the assignment of a single adjuster to handle the wind and flood claims in North and South Carolina. The system works well and proves that cooperation between windpool and WYO companies through the CCO benefits insured individuals by simplifying the claims process with the use of a single adjuster.
10/1989	The FIA implements a fee-charge system for certain categories of requestors of the archival backup for flood insurance studies and restudies. The fee-charge system is needed to limit the increasing costs associated with the servicing of these requests.
10/1989	Effective October 1, new rules revise the definition of substantial improvement and, for the first time, define substantial damage. "Substantial improvement" represents any reconstruction, rehabilitation, addition, or other improvement of a building, the cost of which equals or exceeds 50 percent of the market value of the building before the "start of construction" of the improvement. Substantial improvement includes buildings that have incurred "substantial damage," regardless of the actual repair work performed. Substantial damage reflects damage of any origin sustained by a building whereby the cost of restoring the building to its before-damaged condition would equal or exceed 50 percent of the market value of the building before the damage occurred.
11/1989	Effective November 1, new rules, which supersede those first implemented in October 1986, address provisions on the placement of manufactured homes in existing parks and subdivisions for manufactured homes. The revised rule is developed after consideration of recommendations by a task force including representatives of the manufactured home community and of state and local governments.
11/1989	The National Academy of Sciences completes *Managing Coastal Erosion through the National Flood Insurance Program*, a study requested by the FIA, to provide advice on strategies for erosion management, supporting data needs, and applicable methodologies to administer these strategies through the NFIP. The study is necessary to determine whether the federal government should be involved in erosion insurance and, if so, how such a program should be administered. The question is triggered by the Upton-Jones Amendment (Section 544 of PL 100-242) to the National Flood Insurance Act of 1968 (see 5/1988).

Date	
11/1989	The Defense Production Act Amendment of 1989 (PL 101-137), which reauthorizes the NFIP, extends the Upton-Jones amendment (see 5/1988) from September 30, 1989, through September 30, 1991, and requires FEMA to conduct a study to determine the impact of relative sea-level rise on FIRMs. The study will also project the economic losses associated with estimates of sea-level rise.
12/1989	The FIA produces its first community Flood Risk Insurance Directory (FRID) as a prototype in conjunction with its program to digitize FIRMs. The FRID was never adopted because the information is available in the private sector.
	Before 1989, the FIA had maintained an archive of all effective and all previously effective NFIP maps in hard-copy paper format. To improve on the archival system, to reduce the storage required, and to make copies of the archived maps available to requestors, the FIA begins microfilming all NFIP maps.
1989	The Association of State Floodplain Managers' first formal survey of state and local programs is completed. Using a standardized reporting form makes it possible to summarize state floodplain management activities at the end of the 1980s.
3/1990	The FIA initiates the first two pilot erosion studies to develop the applicable methodologies and study processes to determine rates of erosion.
	The FIA institutes a map panel subscription service. This system allows subscribers to obtain current information on the status of NFIP maps, on a map panel-by-panel basis.
4/1990	The National Wildlife Federation sues FEMA, claiming that the NFIP facilitates development that may result in destruction or adverse modification of habitat of the key deer, an endangered species found only in the Florida Keys. The Endangered Species Act requires that all federal agencies ensure that the actions they authorize, fund, or implement do not jeopardize the continued existence of endangered species. To ensure compliance with this requirement, federal agencies must consult with the Secretary of the Interior about how such actions might affect endangered and threatened species or their critical habitats.
6/1990	C. M. "Bud" Schauerte is nominated to be Federal Insurance Administrator.
8/1990	The GAO reports on compliance with the mandatory flood insurance provision of the Flood Disaster Protection Act of 1973 (see 12/1973) in *Information on the Mandatory Purchase Requirement*. The GAO notes FEMA's belief that the level of compliance with the provision is low. In contrast, according to the GAO, several agencies with responsibility for enforcing the requirement state that noncompliance is not a major problem. GAO's own assessment identifies high levels of noncompliance in parts of the two states it examined, Maine (22 percent) and Texas (79 percent).

Date	
9/1990	As of September 30, there are 2.3 million policies and more than $202 billion of coverage in force.
10/1990	The first financial statement audit of the NFIP that includes the WYO Program (covering 1986-89) results in an unqualified opinion.
10/1990	The Community Rating System (CRS) begins. Under the CRS, discounts on flood insurance premiums are available in communities that voluntarily initiate activities that reduce flood losses or that increase the number of flood insurance policies. The CRS is the product of three years of development by the Community Rating Task Force, which had representatives from the FIA, the insurance industry, and state and local floodplain managers. Extensive field testing, critiques, and reviews with communities, public interest organizations, and the Association of State Floodplain Management's technical advisors were conducted by the Insurance Services Office's Commercial Risk Services Organization under the technical directions of the Community Rating Task Force. Four hundred professional floodplain managers, 50 public interest organizations, and representatives of over 100 communities reviewed the proposal. The CRS is also the subject of a congressional hearing.
10/1990	Effective October 1, the NFIP introduces new elevation and floodproofing for nonresidential structures certificates forms. In addition, the NFIP broadens the definition of a small business so that more businesses can qualify as small businesses under the program.
11/1990	The Omnibus Budget Reconciliation Act of 1990 (PL 101-508) requires FEMA to establish a policy fee to cover the administrative expenses, including salaries, and mapping expenses incurred in implementing the flood insurance and floodplain management program. The $25 fee (later increased to $30) applies to all new and renewal flood insurance policies sold after May 31, 1991. From 1987 to 1991, Congress required all program and administrative costs to be paid from the National Flood Insurance Fund (see 8/1968) without a commensurate increase in rates. The FIA estimates that, as of September 2000, program assets were reduced by about $485 million because costs were not collected during these years.
11/1990	The Coastal Barrier Improvement Act of 1990 (PL 101-591) expands the Coastal Barrier Resources System (established by the Coastal Barrier Resources Act of 1982, see 10/1982) to include units along the Great Lakes, Puerto Rico, the Florida Keys, the Virgin Islands, and secondary barriers within large embayments. After a one-year grace period, federal flood insurance will be prohibited in these units as well as in "otherwise protected lands." Such public or private lands are held for conservation purposes.

Date	
11/1990 continued	After the law's passage, the Coastal Barrier Resources System includes approximately 1,200 miles of coastline and approximately 1,272,000 acres of undeveloped coastal barriers and associated aquatic habitats. The Act directs the Secretary of the Interior to establish a Coastal Barriers Task Force, which would include a representative from FEMA. The task force is supposed to complete a report by November 1992 that, among other topics, identifies the number of structures for which flood insurance has not been available because of the act. The report is never completed.
12/1990	Over 18,000 communities now participate in the NFIP. The Engineering Scientific Data Package System has archived almost 10,000 flood insurance studies. Since 1981, nearly 1,300 existing data studies or existing data restudies were produced using flooding information generated for other purposes. Since 1983, the FIA has accredited more than 12,000 linear miles of levees that protect against 100-year floods.
1990	FEMA identifies seven states (Colorado, Illinois, Kansas, Missouri, North Dakota, Ohio and Oklahoma) that had zoning exemptions in enabling legislation for agricultural buildings. Due to these exemptions communities could not enact ordinances in compliance with the NFIP. The FIA worked with these states to pass legislation or obtain legal opinions that the communities had the authority to enact statutes on floodplain management.
1/1991	The Mortgage Portfolio Protection Program (MPPP) begins. This voluntary program allows lenders to bring their portfolios into compliance with the requirements for the purchase of flood insurance. Any insurance purchased through this program would occur only if the mortgagor property owner does not respond to all the notices the program requires. Lenders participating in the MPPP can purchase policies (or "force place" required insurance coverage) at special high rates, reflecting the uncertainty as to the degree of risk due to the limited underwriting data required. Policies under the MPPP can be purchased only from WYO companies participating in the MPPP. Further, these policies can be purchased only as a last resort for properties that are part of a lending institution's mortgage portfolio. The property must be located within a SFHA of a community participating in the NFIP and not be covered by a policy even after required notices have been given to the mortgagor property owner by the lending institution of the requirement for obtaining and maintaining such coverage.
3/1992	The Corps of Engineers publishes revised *Flood-Proofing Regulations*.

Date	
7/1992	In *Coastal Barriers: Development Occurring Despite Prohibitions against Federal Assistance*, the GAO concludes that development continues on previously undeveloped barrier islands despite restrictions in the Coastal Barrier Resources Act (PL 97-348) on the issuance of flood insurance for structures on such islands. Equally important, the study finds that nearly 10 percent of residences in these areas have NFIP coverage even though coverage is not supposed to be provided in these areas.
9/1992	In reviewing FEMA's adherence to its policies for updating flood maps, the agency's Office of Inspector General finds that FEMA does not consistently adhere to policies to ensure that restudies yielding the most benefits are performed first or use a standard set of criteria to choose maps to digitize. In addition, the Inspector General notes that FEMA provides information on communities to map users in five ways, with the result that the information from the different sources may conflict and lead to incorrect or unneeded flood insurance policies. FEMA generally agrees to implement the recommendations associated with the audit's findings.
10/1992	Section 928 of the Housing and Community Development Act of 1992 (PL 102-550) legislates a flood-control restoration zone (AR) as a result of the decertification of the levee systems of Los Angeles and Sacramento, California. The Act makes certain insurance and development benefits available in areas where a federal flood-control system will be restored.
1992	A survey of state NFIP coordinators by the Association of State Floodplain Managers identifies an increase in state activities and state participants. The survey notes that many states participate in activities to restore and preserve the natural and cultural resources of floodplains and that many identify the environmental benefits of floodplain management as the key to obtaining wide public support. The survey reports that 39 states have more than 175 full-time equivalent personnel.
1992	The Federal Interagency Floodplain Management Task Force publishes its two-volume *Floodplain Management in the United States: An Assessment Report*. Key topics include individual risk awareness; migration to water; floodplain losses; short-term economic returns; enhanced knowledge and technology; national standards for flood protection; limited governmental capabilities; the need for interdisciplinary approaches; application of mitigation measures; the effectiveness of mitigation measures; the role of disaster relief; and national goals and resources. The report concludes that it is difficult to assess the effectiveness of floodplain management, observing that "there are few clearly stated, measurable goals," and that "there is not enough consistent reliable data about program activities and their impacts to tell how much progress is being made in a given direction."

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2/1993	In *Coping with Catastrophe: Building an Emergency Management System to Meet People's Needs in Natural and Manmade Disasters*, the National Academy of Public Administration concludes that, in light of the devastation caused by Hurricane Andrew in south Florida in 1992, FEMA has not successfully integrated its many missions. In the report's words, "FEMA has been ill-served by congressional and White House neglect, a fragmented statutory charter, irregular funding, and the uneven quality of its political executives appointed by past presidents."
4/1993	A U.S. District Court in Key West, Florida, hears the National Wildlife Federation's complaint (see 4/1990) that the NFIP facilitates development in the Florida Keys that may jeopardize the continued existence of the key deer, an endangered species. In response, FEMA states that implementation of the NFIP is not an action subject to the consultation requirements of the Endangered Species Act.
6/1993	The Great Midwest Flood of the upper Mississippi and lower Missouri River basins from mid-June through early August provide evidence that the nation has not yet reached an accommodation between nature's periodic need to occupy her floodplains and the present human occupancy and use. The floods generated the highest flood crests ever recorded at 95 measuring stations. President Clinton declares 505 counties in nine states to be federal disaster areas. Estimates of the total damage are as high as $16 billion. Only about one in ten of affected structures have flood insurance. Various sources attempt to assign recurrence intervals (e.g., a "500-year" flood) to the flood, but they are subject to considerable error due to the flood's complex and widespread nature, the short historic data record on which to base an analysis, changing observation methods, and the difficulty in assigning flow rates and elevations to past historic events. Stanley Changnon edits a comprehensive evaluation of this flood, *The Great Flood of 1993: Causes, Impacts and Responses*, which is published in 1996. Four broad issues are examined as a result of this flood: a) whether to repair or reconstruct the hundreds of damaged flood-control levees (or other structural/protective measures in future floods) and who would pay for permitted repairs; b) whether to permit repair or rebuilding of thousands of substantially damaged structures so they could again be inhibited; c) whether to commit community planning and financial assistance to develop alternative mitigation strategies to the typical repair/rebuild scenario; and, d) whether to use the experience of risk insurance as a mitigation tool.

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8/1993	To study the "levee issue" resulting from damage caused by the 1993 floods and to facilitate the search for appropriate alternatives, the Office of Management and Budget issues guidance to assess strategies for levee reconstruction. Representatives from five federal agencies, state and local governments, and other interested organizations consider alternatives to levee repair that would provide the benefits of flood control and protect natural resources. The committee affects decisions not to rebuild a few levees, but its overall impact is not felt until other post-flood recovery situations such as in California in 1995.
9/1993	The National Performance Review finds that the provision of federal disaster assistance is too generous and too frequent, with the possible result that the federal government may be perceived as the states' "first-line resource in every emergency." Echoing past recommendations (see 1/1981, for example), the Review urges the development of objective criteria to replace "political factors" in decisions about disaster declarations.
11/1993	In response to the criticisms contained in *Coping with Catastrophe*, FEMA reorganizes its 2,500 employees into five directorates, two administrations (the FIA and the U.S. Fire Administration), and 10 regional offices.
12/1993	Due to extensive flooding during the previous fiscal year, the NFIP experiences losses that are more than twice its historic loss level and must borrow $100 million from the Department of Treasury to meets its needs for cash. This is the first time such borrowing has been necessary since 1984. The borrowed funds are repaid in FY 1994.
12/1993	The "Volkmer Amendment" in the Hazard Mitigation and Relocation Assistance Act of 1993 (PL 103-181) amends the 1988 Stafford Act (see 11/1988) to increase federal support for relocating flood-prone properties and increase the amount of hazard-mitigation funds available after a disaster to 15 percent of all of FEMA's appropriated federal disaster funds, up from 10 percent of a portion of FEMA's funds dedicated to community assistance disaster funding for relocation or hazard-mitigation activities. The Act also: increases to 75 percent from 50 percent, effective June 10, 1993, the share of the costs of mitigation activities the federal government will cover; clarifies acceptable conditions for the purchase of damaged homes and businesses; requires the complete removal of such structures; and dictates that the purchased land be dedicated "in perpetuity for a use that is compatible with open space, recreational, or wetlands management practices."

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1/1994	The Executive Office of the President, through the Administration Floodplain Management Task Force, assigns a broad mandate to the Federal Interagency Floodplain Management Review Committee to delineate the causes and consequences of the 1993 Midwest flooding and evaluate the performance of existing programs for floodplain and related watershed management. The committee observes that "in the Midwest, the NFIP tends to discourage floodplain development through the increased costs in meeting floodplain management requirements and the cost of an annual flood insurance premium, although this may not be the case elsewhere in the nation." The committee's report provides an opportunity for "a blueprint for change" in the nation's programs and policies affecting its coastal and riverine floodplains. The committee makes several recommendations including changes in federal policies, programs, and activities that will most effectively achieve risk reduction, economic efficiency, and governmental enhancement in the floodplain and related watersheds. In all, there are 93 recommendations to be used as "a blueprint for the future."
3/1994	The GAO issues *Flood Insurance: Financial Resources May Not Be Sufficient to Meet Future Expected Losses*. The report notes that income from insurance premiums is not sufficient to build reserves to meet expected flood losses. Consequently, the GAO concludes that losses from claims and the program's expenses will exceed the funds available to the program in some years.
4/1994	FEMA issues a proposed rule in response to the Housing and Community Development Act of 1992, which created a flood-control restoration zone (AR) designed to meet communities' concerns. The AR designation recognizes that a system for flood protection is being restored to provide protection during the base flood event and during the restoration period and reduces the costs of flood insurance and elevation requirements while still providing some level of protection for properties that will be exposed to the increased risks of flooding during the restoration period.
6/1994	The Interagency Floodplain Management Review Committee, given the responsibility for conducting a comprehensive review of floodplain management after the Midwest floods of the previous year, publishes *Sharing the Challenge: Floodplain Management Into the 21st Century* (sometimes referred to as the "Galloway Report," after the committee's chair, Gerald E. Galloway, Jr.). The report recommends a sharing of responsibility for floodplain management among federal, state, and local officials and for restrictions on developments in floodplains.

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6/1994 continued	With respect to flood insurance, the Committee criticized the limited penetration of the program in communities affected by the Great Midwest Flood of 1993 (see 6/1993). Repeating the warning of the National Performance Review (see 9/1993), the Galloway report noted that overly generous federal disaster assistance has the potential to reduce individuals' responsibility to protect themselves against disasters. In addition, the report notes that the five-day waiting period between the time of purchase of a flood insurance policy and when coverage is effective allowed many people to purchase insurance with the knowledge that they would be flooded in the summer of 1993. If the waiting period had been 30 days, nearly 4,000 fewer insurance claims would have qualified, and payments would have been $82 million less. The committee thus recommended that the waiting period be increased to 15 days.
9/1994	The Community Development and Regulatory Improvement Act (PL 103-325), the National Flood Insurance Reform Act of 1994, includes the most comprehensive changes to the NFIP since the Flood Disaster Protection Act's approval in 1973. Subtitle B provisions include a nonwaiver of the requirement that flood insurance be purchased by recipients of federal disaster assistance; expand requirements for lenders when making loans and requiring that coverage be maintained over the life of the loan; require escrow of flood insurance payments if escrows are already required; require placement of flood insurance by lenders if a borrower fails to obtain the necessary coverage; impose penalties for failure to require flood insurance or notify borrowers; impose fees for determining the applicability of flood insurance purchase requirement; establish notice requirements for properties located in a SFHA and a change in loan servicer; and require standard hazard determination forms. Subtitle C codifies the Community Rating System and directs that credits may be given to communities that implement measures to protect natural and beneficial floodplain functions and manage erosion. Subtitle D includes provisions to repeal the flood-property purchase and loan program (Section 1362); terminate the erosion-threatened structures program (Upton-Jones Amendment; see 5/1988 and 11/1989); establishes a Mitigation Assistance Program, which replaces the Upton-Jones acquisition/demolition program, to provide grants to states and communities based on a 75/25-percent cost share for mitigation plans and projects; creates the National Mitigation Fund; and provides additional coverage for compliance with land-use and control measures.

Date	
9/1994 continued	Subtitle E establishes the Flood Insurance Interagency Task Force (Section 561(a)) and the Task Force on Natural and Beneficial Functions of the Floodplain. The Flood Insurance Interagency Task Force is directed to conduct a number of studies addressing the programs and procedures of Federal agencies and corporations for compliance with NFIP regulations, and to submit a report of findings and conclusions to Congress. Subtitle F increases the maximum coverage amounts available and includes a requirement to review and assess the need to update and revise FIRMs every five years; establishes a Technical Mapping Advisory Council; requires a study of the economic impacts of erosion-hazard areas; requires an economic impact study of the effect of charging actuarial rates for pre-FIRM properties; increases the waiting period for flood insurance policies to 30 days (see 6/1994); adds provisions regarding agricultural structures; and prohibits disaster assistance to individuals in SFHA who received disaster assistance and did not maintain flood insurance.
9/1994	In an *Audit of FEMA's Mitigation Programs*, FEMA's Inspector General concludes that a lengthy application process, due primarily to the significant delays in the process for determining project eligibility, hampers the agency's implementation of the Hazard Mitigation Grant Program (see 11/1988). In the audit's words, "The criteria for determining environmental impact, cost effectiveness and whether projects represent a long-term solution are especially confusing." In addition, the audit concludes that "there are no mechanisms to measure the effectiveness of mitigation in any of FEMA's programs, and managers have neither the qualitative tools nor resources."
10/1994	The FIA issues a newly revised Agent Flood Insurance Manual.
11/1994	Given the gravity of the 1993 Midwest flood and because less than 15 percent of the nonfederal levees that were damaged qualified for repair consideration under the Corps of Engineer's emergency flood-control repair program, Congress provides supplemental funding for repair of levees. Under the authority of PL 84-99, the Corps of Engineers rehabilitate the 115 levees already eligible under its program and another 241 nonfederal levees using supplemental funding. In total, repairs cost $230 million.
12/1994	The number of flood insurance policies in force exceeds three million for the first time.

Date	
12/1994	A report issued by the U.S. House of Representatives Bipartisan Natural Disasters Task Force concludes that the federal government's generosity with disaster assistance diminishes the incentives for state and local governments "to spend scare state and local resources on disaster preparedness, mitigation, response, and recovery. This not only raises the costs of disasters to federal taxpayers, but also to our society…as people are encouraged to take risks they think they will not have to pay for." The Task Force recommends the creation of a "private, naturally based all-hazard insurance program, in consultation with the insurance industry…for residential and commercial property."
1994	A revised *Unified National Program for Floodplain Management* is published. In the report, the Federal Interagency Floodplain Management Task Force recommends four broad goals for a Unified National Program. These are to: formalize a national goal-setting and monitoring system; reduce by at least half the risks to life and property and the risks to natural resources of the nation's floodplains; develop and implement a process to "encourage positive attitudes toward floodplain management"; and establish a nationwide, in-house capability for floodplain management. The report, submitted to Congress on March 6, 1995, also identifies objectives necessary to achieve each goal and establishes target dates for completing them.
1994	The Federal Interagency Floodplain Management Task Force, with funding from the Environmental Protection Agency and the Corps of Engineers, publishes a guidebook for community officials and other interested parties to aid in developing local programs to protect and restore important floodplain resources and functions. *Protecting Floodplain Resources: A Guide for Communities* provides information on methods to mitigate flood hazards to preserve the integrity of natural systems.
1994	The Association of State Floodplain Managers produces *National Flood Programs in Review, 1994*, the association's first comprehensive effort to assess national programs and policies related to floodplain management.
1994	Elaine A. McReynolds is appointed Federal Insurance Administrator.
1994	In *Florida Key Deer v. Stickney*, 864 F. Supp. 1222 (S.D. Fla. 1994), a U.S. District Court rules that FEMA must comply with the requirements of the Endangered Species Act and consult with the Department of the Interior regarding the possible impacts of development by flood insurance on the key deer, and endangered species (see 4/1990 and 4/1993).

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1/1995	As a result of an *Audit of the Accuracy of Flood Zone Ratings*, FEMA's Inspector General finds that there are zone misreadings in more than one-quarter of all flood insurance policies and that premiums are incorrect for 10 percent of the policies sampled. The audit also notes that FEMA's flood maps are difficult to read, that the rules for writing policies are more complex than for most other forms of insurance, and that FEMA does not have a program for quality control to verify that insurance agents use the correct rating factors (such as flood zone, elevation, or pre- or post-FIRM status) to calculate premiums. FEMA accepts the findings, but does not act to implement the report's recommendations, at least through the end of 1999.
2/1995	Retroactive to September 23, 1994, (the date the president signed PL 103-325, the National Flood Insurance Reform Act), all applicants for Individual and Family Grants (IFG) who receive federal disaster assistance are required to purchase and maintain flood insurance on the flooded property until they move to another address. Failure to maintain the insurance will preclude receipt of any subsequent disaster assistance through the IFG program.
2/1995	FEMA publishes in the *Federal Register* the first compendium that lists all revisions and amendments made to flood maps between October 1, 1994, and December 31, 1994. Subsequent compendia are published in the *Federal Register* every six months.
3/1995	*Federal Disaster Assistance, Report of the Senate Bipartisan Task Force on Funding Disaster Relief* (U.S. Senate Doc. No 104-4) concludes that Congress should improve financial preparedness for catastrophic events. The report notes that between FY 1977 and 1993, the federal government spent $64 billion in direct disaster relief and $55 billion indirectly through low-cost loans. Congress does not act on the recommendations. The Task Force recommends: a) the clarification of criteria for declarations of disasters; b) improved incentives for mitigation; and, c) greater dependence on insurance. The Senate Task Force does not support the recommendations of the House Bipartisan Natural Disasters Task Force (see 12/1994) regarding all-hazard insurance.
3/1995	The FIA proposes the creation of Group Flood Insurance Policies (GFIP). Such policies, intended for low-income recipients of flood-related disaster assistance through the NFIP's Individual and Family Grant Program (see 2/1995), will provide three years of flood insurance, with the federal (75 percent) and state governments (25 percent) sharing the cost of the premiums. At the end of the three-year period, each GFIP recipient will be required to purchase and maintain a standard flood insurance policy. Coverage on that property must be continued as long as the property exists.

Date	
3/1995	In response to the National Flood Insurance Reform Act of 1994, FEMA increases the waiting period to 30 days from 5 days before flood insurance coverage becomes effective. Two exceptions are possible: when the initial purchase of flood insurance is in connection with the making, increasing, extension, or renewal of a loan and when the initial purchase of flood insurance occurs during the one-year period following notice of the issuance of a revised FIRM for a community.
7/1995	Effective July 1, the NFIP introduces provisional ratings for policies that require an elevation certificate when it is not yet available. The NFIP begins accepting credit cards as a means of paying insurance premiums.
7/1995	The Corps of Engineers publishes *Floodplain Management Assessment of the Upper Mississippi River and Lower Missouri Rivers and Tributaries*. Among its findings, the Corps determines that structural flood protection prevents significant damage, that restoration of floodplain wetlands would have had little impact on floods the size of those in 1993, and increased reliance on flood insurance better ensures appropriate responsibility for flood damage.
7/1995	FEMA's Inspector General issues an *Audit of the Enforcement of Flood Insurance Purchase Requirements for Disaster Aid Recipients.* The audit finds that individual recipients of flood-related disaster assistance, who are required to purchase and maintain flood insurance if their flood-damaged property is insurable and within a SFHA, often do not do so (see 9/1994). Low levels of compliance are found even though grants through the Individual and Family Grant Program include funds for the first year's premium. Similarly, the audit notes "very low" levels of compliance with the mandatory-purchase requirement among recipients of grants from FEMA's Public Assistance Program. Such grants provide funds for the repair of state and local governments' facilities. Recipients of Public Assistance funds must purchase flood insurance if their flood-damaged property is insurable and their grant is over $5,000, regardless of whether the property is in a SFHA if insurance is reasonably available, adequate, and necessary.
9/1995	Due to extensive flooding during the previous 12 months, the NFIP experiences losses that are much higher than the historic loss level and must borrow $265 million from the Department of Treasury to meets its needs for cash.
10/1995	The NFIP's "Cover America" campaign begins. The campaign represents a nationwide effort to increase public awareness of the perils of flooding and the desirability of purchasing flood insurance.

Date	
12/1995	FEMA issues *The National Mitigation Strategy: Partnerships for Building Safer Communities*. The document emphasizes two key goals, increasing public awareness of the risks associated with natural hazards and significantly reducing the loss of life, injuries, economic costs, and disruption of families and communities due to natural hazards.
1995	A survey of states by the Association of State Floodplain Managers describes trends since 1992 that have reversed some of the continuous advances made since the late 1960s. According to the survey, state programs face challenges in budget, organization, and authority that threaten their ability to be full, active partners with the federal government and local communities in reducing flood losses. The report concludes that states' capabilities have eroded because of legislative dilution, budgetary restrictions, and organizational dissection.
1/1996	Federally regulated lenders, federal agency lenders, and government-sponsored enterprises are henceforth required to use the Standard Flood Hazard Determination Form. This form is used to determine whether real property offered as collateral for a loan is located in a SFHA.
2/1996	President Clinton promotes FEMA's director to cabinet status.
4/1996	Effective April 30, the NFIP revises the standard flood insurance application and endorsement forms and makes them available through ACORD, a nonprofit association that develops and maintains communication standards for the insurance industry.
5/1996	FEMA initiates the use of Group Flood Insurance Policies (see 3/1995). Such policies help disaster victims located in a SFHA who do not qualify for loans from the Small Business Administration comply with flood insurance purchase requirements. The first such policies are issued in August 1996.
8/1996	Federal regulators of financial institutions issue a joint rule on August 29 to implement the provisions of the National Flood Insurance Reform Act of 1994. The rule is intended to achieve uniformity among these regulators on the substantive and procedural requirements of the act. These regulations become effective on October 1, 1996.
9/1996	FEMA exempts several categories of projects funded through the Stafford Act's Hazard Mitigation Grant Program (see 11/1988) from the use of benefit-cost analysis due to the difficulty in quantifying known project costs and the time involved in gathering data. Exempted activities include those in which the cost of restoring damaged structures equals or exceeds 50 percent of the structures' market value and the structures are located in a 100-year floodplain.

Date	
9/1996	In response to Section 541 of the National Flood Insurance Reform Act of 1994, FEMA submits *The Community Rating System of the National Flood Insurance Program* to Congress. The section requires FEMA to submit a report on the rating system to Congress every two years. Such reports are required to analyze the program's cost effectiveness, accomplishments, or shortcomings, and to provide recommendations for legislation.
9/1996	Due to extensive flooding during the past 12 months, the NFIP experiences losses that are much higher than its historic loss levels and must borrow funds from the Department of Treasury to meets its needs for cash. The total amount borrowed reaches $626 million. The NFIP borrows an additional $192 million over the next six months.
10/1996	Congress approves a supplemental request (reflected in PL 104-208) to increase the NFIP's borrowing authority (see 9/1996) for FY 1997 to $1.5 billion from $1 billion.
10/1996	Federally regulated lending institutions and government-sponsored enterprises (GSE) that purchase mortgages are required, effective October 1, to escrow premiums for flood insurance for properties located in floodplains. If a federally regulated lender or GSE determines that a property in a SFHA does not need flood insurance, such insurance can be "force placed" at the borrower's expense.
10/1996	The Federal Financial Institutions Examination Council implements revised examination procedures for flood insurance in response to the new mandatory purchase requirements of the National Flood Insurance Reform Act of 1994 (see 9/1994).
12/1996	FEMA issues interim guidance for determining the cost-effectiveness of hazard-mitigation projects entitled *How to Determine Cost-Effectiveness of Hazard Mitigation Projects: A New Process for Expediting Application Reviews.* The new guidelines declare that benefit-cost analysis should be used for all cost-effectiveness determinations.
12/1996	Through its Innovations in American Government program, Harvard University's School of Government recognizes FEMA for its Consequent Assessment Tool Set (CATS), which enables the agency to predict the likely consequences of an impending disaster and then to mobilize rapidly an appropriate response.
12/1996	FEMA creates an Insurance Task Force to develop recommendations for reform of its Public Assistance program (see 11/1988 and 7/1995). Requires the NFIP to identify, by June 30, 1974, all communities that contain areas at risk for serious flood hazard and to notify these communities that they can apply for participation in the NFIP or forego their eligibility for certain types of federal assistance in their floodplains.

Date	
1996	The Association of State Floodplain Managers establishes an executive office in Madison, Wisconsin. The association has catalogued more than 700 publications, which are housed at the National Floodplain Management Resource Center at the University of Colorado.
1996	Gerald Galloway declares "the flood [the 1993 upper Mississippi and lower Missouri River basins flood] is over. No one now cares," in his remarks to the Association of State Floodplain Managers Annual Conference and printed in *National Flood Policy: Progress Since the 1993 Floods*.
1/1997	FEMA's Insurance Task Force issues *Insurance Regulations, Review, Analysis, and Recommendations*. The report focuses attention on FEMA's Public Assistance program and recommends that: a) insurance deductibles not be eligible for FEMA funding; b) FEMA establish a policy requiring actual proof of insurance rather than an insurance commitment, before funding is provided; c) FEMA should develop clear regulations to minimize opportunities for misinterpretation of these regulations among FEMA's regional offices; and, d) the authority of state insurance commissioners to waive insurance requirements for public facilities be revoked. In lieu of these commissioners being allowed to grant waivers, the report encourages input from them as to the availability, adequacy, and necessity of insurance. Under no circumstances, however, should the requirement be waived because of affordability, at least according to the report.
3/1997	FEMA issues a *Report on Costs and Benefits of Natural Hazard Mitigation*, which reviews the benefits of mitigative measures. Among the report's 16 case studies are three related to floods: a) the acquisition and relocation of floodplain structures in Missouri; b) land-use and building regulations along Florida's coasts; and c) land-use and building requirements in floodplains.
3/1997	The Flood Insurance Interagency Task Force submits an interim report to Congress providing details on surveys, studies, and research underway to complete the tasks directed by Title V of the National Flood Insurance Reform Act of 1994 (see 9/1994).
5/1997	To consider and implement the recommendations in the 1994 report, *A Unified National Program for Floodplain Management*, FEMA convenes a group of about 40 experts at the annual conference of the Association of State Floodplain Managers in Little Rock, Arkansas and prepares a report on the forum.

Date	
6/1997	Mandated by the National Flood Insurance Reform Act of 1994, Increased Cost of Compliance (ICC) coverage is included in all new and renewal flood insurance policies effective on or after June 1, 1997. This coverage helps to cover the costs of bringing flood-damaged homes and businesses into compliance with community floodplain ordinances. The coverage limit of $15,000 helps to pay for elevating, flood proofing, demolishing, or relocating a structure that has been substantially or repetitively damaged by flooding. ICC coverage is available only in communities that adopt and enforce a substantial-damage or repetitive-loss provision in their floodplain management ordinances and require action by property owners.
9/1997	In accordance with the Government Performance and Results Act (PL 103-62), FEMA issues its first strategic plan, *Partnership for a Safer Future*. The plan delineates FEMA's mission statement, which is to reduce future loss of life and property through timely delivery of assistance intended to help communities restore damaged services and rebuild facilities. According to the plan, FEMA seeks to reduce, by FY 2007, the risk of loss of life and injury from natural hazards by 10 percent and the risk of property loss and economic disruption from such hazards by 15 percent.
9/1997	Due to continuing flood-related losses that exceed historical averages, the value of the Department of the Treasury's loans to the NFIP reach $917 million (see 9/1995 and 9/1996).
10/1997	FEMA publishes a final rule on AR Zones. The rule establishes an AR zone or area of special flood hazard that results from the decertification of previously accredited flood protection system that is determined to be in process of being restored to provide base flood protection.
10/1997	FEMA begins "Project Impact," an effort to protect against the impact of natural disasters before they happen. The project seeks to build disaster-resistant communities through public-private partnerships and includes a national public-awareness campaign; the designation of pilot communities; and an outreach effort to community and business leaders. FEMA will encourage communities to assess the risks they face, to identify their vulnerabilities, and to take steps to prevent disasters. The first three pilot communities include Deerfield Beach, Florida; Pascagoula, Mississippi; and Wilmington, North Carolina. Others are in California, Maryland, Washington, and West Virginia. FEMA's goal is to have at least one Project Impact community in every state by September 30, 1998. Congress appropriates $30 million for Project Impact for FY 1998 and $25 million for the following fiscal year.

Date	
10/1997	FEMA announces that benefit-cost analyses will not be required for hazard mitigation planning projects associated with disasters that occurred before June 10, 1993.
11/1997	In *Modernizing FEMA's Flood Hazard Mapping Program*, FEMA describes its plans to modernize its flood-hazard maps, of which there are about 100,000 map panels. The program's purpose is to increase public awareness and the maps' accuracy, utility, and production. Approximately 45 percent of the current maps are at least 10 years old, and 70 percent are five years or older. Consequently, many of the maps are inaccurate and portray analyses that are outdated. FEMA estimates the cost of implementing its new program at $901 million (in addition to the $46 million spent in 1997) over seven years. FEMA believes that the plan will avoid approximately $26 billion in flood damages to new buildings over a 50-year period.
12/1997	In response to Section 577 of the National Flood Insurance Reform Act of 1994, FEMA completes a process of mapping erosion hazards in 27 coastal counties in 18 states.
1997	The Association of State Floodplain Managers establishes a foundation to "attract funds that support, through education, training and public awareness, projects and programs that will lead to the wise management of our nation's floodplains."
1997	The Presidential Long Term Recovery Task Forces (for the 1997 Red River floods) are established. These task forces operate at a higher administrative level and are more visible than FEMA's mitigation process. Recovery and mitigation become increasingly integrated.
1997	FEMA awards a contract to evaluate the NFIP's underwriting and loss adjustment process. This subsequent report provides recommendations to improve the operation of the NFIP by identifying practical changes to the underwriting/rating and claims processes. The NFIP's requirements and controls (and compliance with them) are found to be adequate to ensure effective management of the program. The report also notes areas for improvement.
1997	FEMA awards a contract to investigate alternative financing arrangements for the NFIP. A stochastic model is developed to estimate the NFIP's financing costs over a ten-year period using eight alternative financing scenarios. Four commercial and four governmental financing scenarios are simulated, and the total cost of each is projected.
1/1998	FEMA initiates the Repetitive Loss Task Force to develop a strategy to address the NFIP's repetitive loss problem.

Date	
3/1998	The American Society of Civil Engineers releases its *1998 Report Card for America's Infrastructure* and declares that "an alarming number of dams across the country are showing signs of age and lack of proper maintenance…. Dam safety officials estimate that thousands of dams are at risk of failing or are disasters waiting to happen."
3/1998	FEMA's Office of Inspector General issues *Review of FEMA's Implementation of Insurance Requirements in the Public Assistance Program*. The report recommends that FEMA clarify its regulations governing the conditions under which state insurance commissioners issue waivers of insurance requirements for recipients of Public Assistance grants. As a condition of receiving a Public Assistance grant, FEMA requires that applicants purchase and maintain insurance on property damaged in a disaster (see 11/1988, 1/1997, and 7/1995). The amount of insurance applicants must purchase is equal to the cost of repairs to the property. In addition, insurable structures located in a SFHA must be insured if they have been damaged in previous disasters. These requirements are designed to reduce the need for future disaster assistance. In lieu of a commitment to purchase insurance, an applicant can obtain a waiver from a state insurance commissioner. The commissioner can waive the requirement if it is determined that the required insurance is not reasonably available, adequate, and necessary. The Inspector General's report notes that FEMA has not provided an interpretation of what is reasonable, with the consequence that many waivers are granted because insurance commissioners decide that suitable coverage is not affordable. In such instances, FEMA has a substantial uninsured investment since it is the primary insurer.
3/1998	In a separate report, *Improvements Are Needed in the Hazard Mitigation Buyout Program*, the Office of Inspector General questions FEMA's decision to exempt certain categories of activities from the requirement that mitigation activities be cost-effective, as determined through the use of cost-benefit analysis. The report also notes that FEMA lacks an analytical basis for exempting such projects.
5/1998	On May 1, the NFIP increased the standard deductibles for building and contents coverages for subsidized policies to reduce the subsidy levels through means other than rate increases. Other program changes include: new eligibility requirements for Preferred Risk Policies based on the flood history of the property regardless of ownership, implementation of new AR zones, and detailed procedures for detailed procedures for determining eligibility for NFIP insurance in areas of the Coastal Barrier Resources Systems.

Date	
9/1998	FEMA initiates a nationwide *Call for Issues*. Through this activity FEMA requests comments on all facets of the NFIP from its partners and customers in an effort to improve the program's effectiveness.
9/1998	The Flood Insurance Interagency Task Force submits its final report to Congress on *Enforcement and Compliance Procedures Necessary to Carry Out the Provisions of the National Flood Insurance Reform Act*. The Task Force reports on its development of a compliance model checklist, a catalog of compliance assistance materials, and a list of "best practices" for federal agencies and Government Sponsored Enterprises (GSE). The report finds that a reasonable degree of standardization of enforcement exists within the federal agencies and GSEs.
9/1998	Five cities in southern California file a lawsuit in U.S. District Court in which they claim that FEMA's delineation of a flood control restoration zone (Zone AR) violates the National Environmental Policy Act and Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The cities allege that the zone's designation and the requirements it imposes will have a substantial negative impact of their residents' ability to use their land, on the environment, and on minority and low-income populations.
10/1998	The Partnership for Response and Recovery, under a FEMA contract, issues *Analysis of Public Assistance Proposed Insurance Regulation Changes*, which estimates the potential cost reductions of proposed changes in insurance regulations and the Stafford Act's Public Assistance grants (see 11/1988, 7/1995, 1/1997, and 3/1998).
10/1998	In response to Section 541 of the National Flood Insurance Reform Act of 1994, FEMA completes and submits to Congress *An Evaluation of the National Flood Insurance Program's Community Rating System*. The report notes that 894 communities, representing 66 percent of all policyholders, participate in the CRS (see 10/1990 and 9/1994). Tulsa, Oklahoma, and Sanibel Island, Florida, are the two-best rated CRS communities.

Date	
11/1998	FEMA's director, James Lee Witt, announces a series of proposals to reduce disaster losses by half in three years and to save nearly $1 billion over 10 years. If adopted, the first proposal would prohibit the purchase of flood insurance by homeowners who have filed two or more claims that total more than the value of their home and who refuse to elevate their home or to accept a buyout. At present, there is no limit to the number of claims made by property owners who suffer repetitive damage from floods. The second proposal would require that public buildings be insured to 80 percent of their replacement value within two years. Although the 1988 Stafford Act requires states and local communities to insure public buildings, FEMA's regulations require only that the amount of insurance to be purchased must be at least up to the amount of eligible damage under the Public Assistance program (see 11/1988, 7/1995, 1/1997, and 3/1998). If the eligible damage is less than the building's replacement value, and if the corresponding minimal levels of insurance can be purchased, this can result in vastly underinsured buildings. Existing regulations do not indicate whether the insurance must provide coverage for a building's actual cash value or its replacement cost and do not address deductibles. Consequently, the current regulations do not include any incentive to encourage insurance on public buildings that have benefited from disaster assistance.
1998	The FIA estimates that approximately 1.7 million homeowners (or 38 percent) with a mortgage in a SFHA do not have flood insurance.
1998	The National Wildlife Federation publishes *Higher Ground: A Report on Voluntary Property Buyouts in the Nation's Floodplains* describing efforts to restore floodplains through voluntary buyouts of property in high-risk areas. The report analyzes repetitively flooded properties and discusses the history of buyout programs in the United States and the 1993 Midwest flood. Most important, the report concludes that the NFIP is not actuarially sound and that its premiums are insufficient to generate the funds needed to cover flood insurance payments.
1998	Jo Ann Howard is appointed Federal Insurance Administrator.
1/1999	The Association of State Floodplain Managers supports the creation of state floodplain management associations and encourages their chapter membership. As of 1999, 12 states enjoyed chapter membership. Several other states formed associations, with many working toward chapter status.
1/1999	The FIA uses findings from an evaluation of the "Cover America" campaign to develop the "Cover America II" campaign.

Date	
1/1999	FEMA, working with the Public Risk Management Association, conducts a series of regional meetings of public risk managers to discuss and hear reactions to FEMA's first draft of its insurance proposal relative to Public Assistance grants under the Stafford Act (see 11/1988, 7/1995, 1/1997, 3/1998, and 11/1998). FEMA's goal is to limit funding under the Act's Public Assistance program to the state and local agencies that maintain specified minimum levels of insurance coverage. FEMA believes that existing rules create a disincentive to both carry insurance and to manage the risk of disasters and are inequitable in that they penalize state and local governments that purchase appropriate insurance coverage.
1/1999	*National Flood Insurance Program: Issues Assessment, A Report to the Federal Insurance Administration* is published. This report, funded by FEMA, is based on a literature review to answer questions about the program's effectiveness by assessing two central concerns: the relation between floodplain development and insurance availability and enforcement of floodplain management requirements at the local level. The report notes that "none of the studies offered irrefutable evidence that the availability of flood insurance is a primary factor in floodplain development today. Neither does the empirical evidence lend itself to the opposite conclusion." Noting that "it is there, in the day-to-day decisions by location officials, that the [NFIP] either succeeds or fails to accomplish its statutory mandate" and that "a number of tools and oversight systems have been devised to monitor, support and evaluate the quality of community enforcement." The report offers no conclusions regarding the second concern.
1/1999	FEMA requests that Congress authorize a transaction fee of $15 for each federally insured mortgage issued. The money collected will be used to fund FEMA's modernization of its maps. Congress eventually declines the request but does provide $5 million to begin updating the maps. The U.S. Senate Committee on Appropriations instructs FEMA to evaluate alternative funding options. FEMA's response is contained in *Flood Map Modernization Plan: Funding Options Report*. Four options are identified: a map-use fee; an increase in the fee charged for each flood insurance policy; supplemental appropriations; and use of the NFIP's borrowing authority.
2/1999	The U.S. House of Representatives' Committee on Financial Services indicates that its oversight plan for the 106th Congress includes attention to repetitive losses and the implementation of the Community Development and Regulatory Improvement Act of 1994 (see 9/1994).

Date	
3/1999	To recognize the inherently greater flood risk of pre-FIRM, V-zone properties, the FIA announces increases in the amount of premiums that flood insurance policyholders must pay for flood insurance coverage for pre-FIRM buildings in coastal areas subject to high velocity waters, such as storm surges and wind-driven waves.
4/1999	The FIA hires an advertising agency to plan, implement, and evaluate the five-year "Cover America II" campaign. A new logo is developed for the campaign.
5/1999	On May 1, the NFIP eliminates the three-year policy.
5/1999	At FEMA's request, a *Study of the Economic Effects of Charging Actuarially Based Premium Rates for pre-FIRM Structures* is completed. The study examines: the number and types of properties that would be affected by an increase in premium rates; the number of policyholders that might cancel their policies if rates are increased; and the effects of increased premiums on property taxes and the value of land. The report estimates that there are about seven million structures in a SFHA. The study concludes that an immediate elimination of subsidized flood insurance would lead to a significant drop in the number of people retaining insurance. In the report's words, "…if [the] subsidy was eliminated…average premiums for residential properties subject to substantial flood risk would likely increase from $585 to about $2,000 annually."
5/1999	The Association of State Floodplain Managers initiates a Certified Floodplain Manager (CFM) Program. The program is intended to advance the knowledge of floodplain managers, enhance the profession of floodplain management, and provide a common basis for understanding floods and flood losses.
5/1999	A. U.S. District judge in the Central District of California rules that FEMA did not violate the National Environmental Policy Act by requiring flood insurance of property owners in five southern California cities without first preparing an environmental impact statement (see 9/1998).
6/1999	The Board of Governors of the Federal Reserve System imposes the first penalty on a federally regulated lending institution, in Puerto Rico, for a pattern of noncompliance with the mandatory-purchase requirement of the Flood Disaster Protection Act of 1973. The Federal Deposit Insurance Corporation subsequently imposes a fine on a lending institution for the same reason.
7/1999	FEMA submits a draft, revised regulation on Public Assistance grants and insurance requirements to the Office of Management and Budget for review and approval (see 11/1988, 7/1995, 1/1997, 3/1998, 11/1998, and 1/1999). FEMA designates the draft proposed rule as being economically significant under Executive Order 12866, *Regulatory Planning and Review*, but has not yet completed analyses of the economic impact the proposed regulations would have on small entities.

Date	
7/1999	With the imminent expiration of the first Group Flood Insurance Policies (see 5/1996 and 8/1996), FEMA extends the coverage of such policies from 36 to 37 months.
8/1999	FEMA proposes to apply full-risk premium rates on new or renewed policies for structures that have suffered multiple flood losses whose owners have declined an offer of funding to elevate, relocate, or flood proof the structure. Labeled as "target repetitive loss buildings," these structures have had two or more flood-related losses, each resulting in a claim of $1,000 or more, within the past 10 years. In addition, such structures have suffered four or more insured flood losses or two insured flood losses cumulatively greater than their value. FEMA indicates that approximately 8,000 insured structures have suffered four or more losses; another 1,300 insured buildings have had two or three losses that cumulatively exceed their value.
8/1999	The GAO releases *Disaster Assistance: Opportunities to Improve Cost-Effectiveness Determinations for Mitigation Grants.* The 1988 Stafford Act requires that such grants be cost effective, but the report notes that 15 percent of funds distributed by FEMA's Hazard Grant Mitigation Program have been exempted from benefit-cost analysis or had a benefit-cost ratio of less than 1.0. In addition, 39 percent of projects had a benefit-cost ratio of between 1.0 and 1.5, and were thus "marginally effective," at least according to a subcommittee of the U.S. House of Representatives' Committee on Transportation and Infrastructure. FEMA states that it will comply with all of the recommendations included in the GAO report.
8/1999	FEMA issues *Cost Estimate for the Flood Map Modernization Plan*. The report estimates it will cost $750 million to implement the plan over the seven-year period from FY 2001-07. The upgrade of the map inventory will involve updating and producing digital maps for at least 17,500 panels requiring updates, digital conversion and maintenance for 74,500 panels, and development of flood data and digital flood maps for 13,700 panels for flood-prone communities without flood maps.
9/1999	In an *Audit of the Effectiveness of the Substantial Damage Rule*, FEMA's Inspector General notes that many communities participating in the NFIP fail to enforce substantial damage rules. The result is that subsidized rates are provided to structures that should be rated on an actuarial basis.
9/1999	FEMA publishes an *Economic Evaluation of Substantially Damaged Structures Funded through the Hazard Mitigation Grant Program*. The report retrospectively calculates the costs and benefits of approximately 10 percent of acquisition and relocation projects for substantially damaged structures in floodplains.

Date	
10/1999	FEMA's director hosts a meeting with insurance executives. According to FEMA, the participants agree that FEMA's proposal on Public Assistance grants has strong merit and the amount of insurance coverage appears reasonable (see 11/1988, 7/1995, 1/1997, 3/1998, 11/1998, and 1/1999). FEMA also observes that doubt is expressed about the market's ability to provide earthquake coverage immediately and that several meeting participants suggested separating earthquake insurance from the proposal.
10/1999	The FIA begins operating the Special Direct Facility (SDF) to centralize policies with repetitive losses for control purposes and mitigation actions. Two subsets of currently insured repetitive-loss properties are moved to the SDF – those with two or three paid losses where the cumulative payments for flood insurance claims are equal to or greater than the building value and those with four or more paid losses.
10/1999	FEMA director James Lee Witt informs a congressional committee that 84 percent of the agency's flood-hazard maps are more than five years old, 66 percent are greater than 10 years old, and 33 percent are greater than 15 years old. Some maps, produced in the 1970s, have never been updated.
10/1999	At a hearing before the U.S. House of Representatives' Subcommittee on Housing and Community Development Opportunity of the Committee on Banking and Financial Services, Director Witt notes that FEMA has identified approximately 10,000 properties that have had four or more flood losses or two or three flood losses that cumulatively exceed the value of the building. The NFIP has provided over $800 million in claims for these properties over the past 21 years. The total cost for mitigation or buyout for these structures would be about $450 million.
10/1999	Hurricane Floyd strikes North Carolina and causes the worst flooding in the state's history. Over $100 million in disaster assistance is provided to more than 72,000 residents. Throughout the state, nearly 150,000 structures are located in SFHAs, but only one-third are covered by flood insurance.
10/1999	Through October 1999, FEMA has issued 98 Group Flood Insurance Policies (see 3/1995, 5/1996, 8/1996, and 7/1999) covering nearly 29,000 households.
11/1999	The H. John Heinz III Center for Science, Economics and the Environment publishes *The Hidden Costs of Coastal Hazards*. The result of a two-year study by an expert panel, the report suggests new strategies to identify and reduce weather-related hazards and the costs associated with rapidly increasing coastal development. The report offers the first in-depth estimates of the costs of coastal hazards to natural resources, social institutions, business, and the built environment.
11/1999	"Cover America II" begins to increase awareness of the NFIP and flood insurance.

Date	
11/1999	The Consolidated Appropriations Act (PL 106-113) directs FEMA to study the feasibility and justification for reducing buyout assistance to property owners who fail to purchase and maintain flood insurance. The Act also authorizes up to $215 million for the buyout or relocation of owner-occupied principal residences located in a 100-year floodplain that were made uninhabitable by flooding caused by Hurricane Floyd and "surrounding events" in October 1999. Before such funds can be allocated, FEMA will be required to establish procedures for establishing priorities and for benefit-cost analyses.
12/1999	By the end of 1999, there are more than 4.2 million flood insurance policies in effect, with total insurance coverage of more than $534 billion, an increase of more than 250 percent since December 1990.
1999	Approximately 20 years after publication of the first *Assessment of Research on Natural Hazards*, researchers complete a follow-up study to reassess the state of knowledge of natural hazards in the United States. Begun in 1992, the study involves more than 120 experts and culminates in *Disasters by Design: A Reassessment of the Natural Hazards in the United States*. The report concludes that: a) one of the central problems in coping with disasters is the belief that technology can be used to control nature; b) most strategies for coping with hazards fail to consider the complexity and changing nature of hazards; and, c) losses from hazards result from shortsighted and narrow concepts of the relation of humans to the natural environment. To redress these shortcomings, the researchers recommend that the United States shift to a policy of "sustainable hazard mitigation." This concept links wise management of natural resources with local economic and social resiliency.
1999	In *Disasters and Democracy: The Politics of Extreme Natural Events*, Rutherford Platt and his colleagues trace the historical evolution of the federal role in disaster assistance and analyze disaster declarations and federal assistance provided under the Robert T. Stafford Relief and Emergency Assistance Act since 1988.
End 1990s	FEMA has mapped more than 100 million acres of SFHAs and had designated about six million acres of floodways along 40,000 stream and river miles. The total cost for these studies is approximately $1.3 billion.

Date	
1/2000	The International Building Code and the International Residential Code are published. For the first time there is a national model building code that includes the construction provisions of the NFIP. The codes are substantially equivalent to the requirements of the *National Earthquake Hazard Reduction Program Recommended Provisions* (1977) and the state-of-the-art wind-load provisions of the American Society of Civil Engineers (1998), *Minimum Design Loads for Buildings and Other Structures*. The International Residential Code represents the first time that wind, flood, and seismic loads are comprehensively addressed in a model for one- and two-family dwellings.
2/2000	In *Disaster Assistance: Issues Related to the Development of FEMA's Insurance Requirements*, the GAO concludes that FEMA had conscientiously sought to obtain and incorporate comments from stakeholders on its proposal to revise the Public Assistance program (see 11/1988, 7/1995, 1/1997, 3/1998, 11/1998, 1/1999, and 10/1999). In contrast, the GAO also finds that FEMA had not completed the analysis required for economically significant regulations.
2/2000	Seeking public comment and advice, FEMA publishes an *Advance Notice of Proposed Rulemaking*, which indicates FEMA's belief that its regulations covering Public Assistance insurance requirements are inadequate with respect to public buildings (see 11/1988, 7/1995, 1/1997, 3/1998, 11/1998, 1/1999, and 10/1999). The notice identifies three options; FEMA favors the option that would provide funds for the repair of public buildings, through federal disaster assistance, only if they are insured at the time of the disaster. States and local governments would have 36 months after the publication date of the final rule to purchase the required insurance.
4/2000	The Association of State Floodplain Managers publishes *The Nation's Response to Flood Disasters: A Historical Account*, which summarizes the forces and events that have affected floodplain management in the United States since the 1850s.
5/2000	The NFIP revises its fee schedule for processing certain types of requests for changes to NFIP maps and for processing requests for particular NFIP map and insurance products. The changes in the fee schedules are intended to reduce further NFIP's expenses by recovering more fully the costs associated with processing conditional and final requests for map changes; retrieving, reproducing, and distributing technical and administrative data related to analyses and mapping; and producing, retrieving, and distributing map and insurance products.

Date	
6/2000	In collaboration with the H. John Heinz III Center for Science, Economics and the Environment, FEMA releases *Evaluation of Erosion Hazards*. The report responds to a congressional mandate included in Section 577 of the National Flood Insurance Reform Act of 1994. Noting that coastal erosion potentially jeopardizes nearly 87,000 homes, the report recommends that Congress should require FEMA to include the anticipated cost of erosion when setting flood insurance rates. The NFIP is not permitted to take into account expected losses from coastal erosion when establishing premiums for flood insurance.
6/2000	FEMA issues *Call for Issues: Status Report*, which summarizes the NFIP-related comments and suggestions of more than 170 stakeholders (see 9/1998).
6/2000	The NFIP issues rules that establish procedures for inspections to help verify that structures comply with a community's floodplain ordinances and to ensure that property owners pay flood insurance premiums commensurate with their flood risks. The procedures, to be used initially in a pilot study in Monroe County, Florida, will require owners of insured buildings to obtain an inspection from local floodplain officials as a condition of receiving insurance. Results of the pilot study will be evaluated before further implementation of the new procedures.
6/2000	FEMA sponsors a Floodplain Management Forum in Washington, DC, which gathers a group of floodplain management experts together to discuss the future of floodplain management in the United States.
7/2000	PL 106-246 provides $50 million for the buyout and elevation of structures in states that received presidential disaster declarations in FY 1999 or 2000.
8/2000	At the request of the U.S. Senate's Committee on Banking, Housing, and Urban Affairs, the GAO initiates a study of the compliance of federally regulated lending institutions with the NFIP's mandatory-purchase provisions (see 12/1973, 1/1974, 8/1990, and 6/1999). The Flood Disaster Protection Act of 1973 prohibits such institutions from making, increasing, extending, or renewing any loan on a property without requiring flood insurance if that property is located in a SFHA within a community participating in the NFIP. As a result of the GAO study, the FIA delays its own study on the subject.
8/2000	In response to the Consolidated Appropriations Act (PL 106-113) (see 11/1999), FEMA reports to Congress that there is no justification for reducing buyout assistance to property owners who fail to purchase and maintain flood insurance. In the report's words, "Doing so will not result in any significant increase in the purchase of flood insurance, but will have the unintended consequence of effectively penalizing the low income populations most in need of federal assistance to move out of harm's way…."

Date	
8/2000	In *Opportunities to Enhance Compliance with Homeowner Flood Insurance Purchase Requirements*, FEMA's Inspector General examines compliance with the requirement for mandatory purchase of flood insurance by property owners with mortgages from federally regulated lending institutions. In its sample of structures, the Inspector General found that 10 percent did not have flood insurance even though they met the requirements for mandatory purchase. The examination also noted that there is "no process to ensure that structures remapped into SFHAs are covered by or will be required to purchase a flood insurance policy." The report also observes that Group Flood Insurance Policies (see 3/1995 and 8/1996) appear to have lessened the costs of some disasters and appear to be cost-effective. In contrast, once the federal and state subsidies end for such policies, the low-income recipients of thee subsidies rarely continue their coverage, although they are required to do so under the terms of their receipt of their previously subsidized coverage.
9/2000	In an *Audit of FEMA's Cost Estimates for Implementing the Flood Map Modernization Plan*, FEMA's Inspector General concludes that the agency's methodology for estimating the plan's costs are generally sound but that FEMA "has not made significant progress in implementing the plan's primary objectives" due to a lack of funds and the accuracy of the estimated costs of implementation should be improved.
9/2000	FEMA initiates the first comprehensive evaluation of the NFIP. A consulting firm is hired to design the evaluation and to assess the feasibility of evaluating questions in six areas of inquiry.
10/2000	The FIA issues final regulations in the *Federal Register* that render the standard flood insurance policy in plain English and restructures its format to resemble a homeowner's policy. In addition, use of the new FEMA evaluation certificate becomes mandatory.
10/2000	FEMA summarizes comments in the *Federal Register* from nearly 300 stakeholders who expressed their opinions about the agency's proposed revisions to the Public Assistance program (see 11/1988, 7/1995, 1/1997, 3/1998, 11/1998, 1/1999, 10/1999, and 2/2000). Opponents claim that states and communities cannot afford to insure public buildings and that coverage would be difficult to obtain. FEMA notes that it will initiate a study on insurance coverage of publicly owned buildings and facilities.

Date	
10/2000	FEMA issues its *Biennial Report to Congress* on the Community Rating System. As of October 1, 926 communities are participating in the CRS. Tulsa, Oklahoma continues to be the best rated community (see 10/1998), followed by Juno Beach and Sanibel, Florida; Kemah, Texas; and Pierce and Thurston Counties, Washington.
10/2000	The Disaster Mitigation and Cost Recovery Act (PL 106-390) amends the 1988 Stafford Act and provides authority to establish a program to provide technical and financial assistance to states and local governments to assist in the implementation of predisaster hazard-mitigation measures that are cost-effective and that are designed to reduce injuries, loss of life, and damage and destruction of property, including damage to critical services and facilities under the jurisdiction of the states or local governments. The law also requires states to prepare a comprehensive state program for emergency and disaster mitigation prior to receiving funds from FEMA and directs the GAO to conduct a study to determine the current and future expected availability of disaster insurance for public infrastructure eligible for assistance under the Stafford Act. The law further requires that FEMA discontinue its Individual and Family Grant Program as of May 2002 and replace it with a new program entitled "Financial Assistance to Address Other Needs" (see 2/1995).
12/2000	There are more than 200 communities participating in Project Impact, FEMA's predisaster mitigation program.
2000	FIA's business process improvement initiative results in a "Blueprint for the Future" for the NFIP. Developed with the NFIP's strategic partners, this blueprint will be the foundation for strategic and performance planning. When completed, Phase II will focus on FIA's information technology requirements and capabilities. Strategies for information technology, which lead to optimum future operations, will be developed and assessed.

Date	
1/2001	In *Compliance with Public Assistance Program's Insurance Purchase Requirements*, FEMA's Inspector General notes that neither FEMA nor the states consistently maintain sufficient information to support their decisions on applicants' insurance status (see 11/1988, 7/1995, 1/1997, 3/1998, 11/1998, 1/1999, 10/1999, 2/2000, and 10/2000). As a condition of receiving public assistance, recipients are required to protect insurable facilities by obtaining and maintaining insurance for the hazard that caused the damage. If the applicant does not maintain insurance, FEMA will not provide any assistance to that applicant in future disasters of the same type. In about one-third of cases examined, states, or communities did not maintain required insurance. In other instances, although proof of insurance was provided, some applicants for federal assistance purchased less insurance than required. FEMA generally agreed to implement the recommendations associated with the audit's findings.
1/2001	Several environmental groups, including the Forest Guardians of Santa Fe, file suit in U.S. District Court in New Mexico alleging that the NFIP promotes inappropriate development in floodplains of the Rio Grande and San Juan Rivers and adversely affects the habitats of several endangered species.
2/2001	President George W. Bush submits to Congress his budget for 2002. This "Blueprint for New Beginnings" includes reforms to the National Flood Insurance Program aimed at saving $12 million dollars. The budget seeks to eliminate the availability of flood insurance coverage to several thousand "repetitive loss" properties and phase out the subsidization of premium rates for vacation homes, rental properties, and other nonprimary residences and businesses. The proposed budget would also eliminate funding for Project Impact (see 10/1997) because it "has not been proven effective."
2/2001	The U.S. House of Representatives' Committee on Financial Services indicates that its oversight plan for the 107th Congress includes attention to the implementation of the Community Development and Regulatory Improvement Act of 1994 (see 9/1994) and recent FEMA reports that address reductions in subsidies and repetitive losses (see also 2/1999).
2/2001	In *Buyouts: Hurricane Floyd and Other Issues Related to FEMA's Hazard Mitigation Grant Program*, FEMA's Inspector General notes that ambiguity in the legislation authorizing buyouts of properties damaged by Hurricane Floyd "caused significant delays in the commencement of the buyout process, contributed to much confusion and frustration over the funding requirement to execute such projects, and may have caused potential inequities in the type of structures targeted for buyout…" (see 11/1999 and 7/2000).

Date	
5/2001	The GAO provides testimony and submits a statement to the U.S. Senate's Committee on Appropriations, Subcommittee on Veterans, Housing, and Independent Agencies, on *Emerging Opportunities to Better Measure Certain Results of the National Flood Insurance Program*. The GAO finds that FEMA's performance goals do not assess the degree to which residents in flood-prone areas participate in the program. Noting that better data are needed on the number of structures in flood-prone areas, the GAO concludes that "Capturing data on the numbers of uninsured and insured structures in flood-prone areas can provide FEMA with another indication of how effectively the program is penetrating those areas most at risk of flooding, whether the financial consequences of floods in these areas are increasing or decreasing, and where marketing efforts can better be targeted."
6/2001	FEMA combines the FIA and the Mitigation Directorate to form the Federal Insurance Administration and Mitigation Administration (FIMA).
6/2001	The NFIP eliminates its outstanding debt to the Department of the Treasury. This debt, which the NFIP had accumulated to pay for flood claims since the 1970s, had reached as much as $922 million in February 1999.
7/2001	In testimony before the Subcommittee on Housing and Community Opportunity of the U.S. House of Representatives' Committee on Financial Services, FIMA's acting director notes that pre-FIRM, subsidized policies represent approximately 27 percent of all of its policies. Among all policies, approximately 15 percent of properties have accounted for 38 percent of all of the NFIP's losses.
8/2001	Robert F. Shea is appointed Acting Federal Insurance and Mitigation Administrator.
9/2001	The Office of Federal Housing Enterprise Oversight proposes (and subsequently adopts in December 2001) a regulation to codify the office's authority to oversee and enforce certain statutory requirements affecting the operations of government-sponsored enterprises regarding the NFIP.
10/2001	More than 4.37 million policies are in force, with a total coverage of approximately $594/5 billion. These policies are distributed among 19,713 communities, including 19,071 in the regular program and 642 in the emergency program (see 12/1969); 938 communities (with 66 percent of all policyholders) participate in the Community Rating System (see 10/1990).
12/2001	FEMA proposes to increase the amount of premium that policyholders must pay for flood insurance for pre-FIRM buildings in coastal areas subject to high-velocity waters, such as storm surges and wind-driven waves. If finalized, the increase will represent the fifth such increase in rates for such policyholders (see 3/1999). The purpose of the proposed increase is to reflect the insurance associated with their greater exposure to flood losses.

Date	
1/2002	In response to the Disaster Mitigation Act of 2000 (PL 106-390) (see 10/2000), FEMA proposes the consolidation of two disaster-relief programs, "Temporary Housing Assistance" and "Individual and Family Grant Program," into a single program called "Federal Assistance to Individuals and Households." In addition, FEMA proposes the elimination of Group Flood Insurance Policies (see 3/1995, 5/1996, 7/1999, 10/1999, and 8/2000), thus indicating its desire to "restore the responsibility for the flood insurance purchase requirement back to the individual or household receiving federal assistance."
1/2002	FEMA notifies officials in Monroe County, Florida, that its unincorporated areas may be placed on probationary status with the NFIP due to ongoing deficiencies in the local floodplain management program (see 6/2000).
3/2002	The NFIP amends its regulations to require that areas of Monroe County, Florida, that incorporate on or after January 1, 1999, and become eligible for the sale of flood insurance must participate in the inspection program as a condition of joining the NFIP (see 6/2000 and 1/2002).
3/2002	The NFIP initiates a three-year pilot project that will permit governmental risk-sharing pools to sell flood insurance to public entities under the NFIP's WYO effort. The NFIP limits participants in this pilot effort to a maximum of six such insurers that are able to provide flood insurance for their public buildings.
3/2002	Anthony Lowe is appointed Federal Insurance and Mitigation Administrator.
5/2002	FEMA's Inspector General publishes *Extent that Mitigation Funds are Used to Address Repetitive Flood Loss and Other Related Issues*. This report assesses the extent to which funds from the Hazard Mitigation Grant Program and the Flood Mitigation Assistance Program are used to acquire repetitive-loss properties. The report concludes that such funds could be used more effectively, especially with regard to the targeting of the most egregious repetitive-loss properties (see 11/1988, 9/1994, 9/1996, 9/1999, and 2/2001).

Date	
6/2002	The GAO completes *Extent of Noncompliance with Purchase Requirements is Unknown*. This report notes that flood insurance is required for properties located in flood-prone areas of participating communities for the life of mortgage loans made or held by federally regulated lending institutions or guaranteed by federal agencies. Mortgages purchased by government-sponsored enterprises (GSE) are also included in this requirement as a result of the National Flood Insurance Reform Act of 1994 (see 9/1994). Despite the requirement, the GAO notes that no definitive analysis has been conducted that measures the extent to which property owners who are required to purchase insurance actually do so. On the basis of examinations and compliance reviews, bank regulators and GSE officials believe that rates of noncompliance are low. In contrast, FEMA officials disagree with bank regulators and these officials, contending that rates of noncompliance are still significant. According to the GAO, these contrasting views are due to the fact that the regulators and FEMA use different measures to assess compliance. Nonetheless, the GAO concludes that analysis of the available data suggests that noncompliance could be low at loan origination.
6/2002	In *Duplication of Benefits: National Flood Insurance Program and the Disaster Housing Program's Minimal Repair Grants*, FEMA's Inspector General concludes that FEMA's internal controls are inadequate to detect and prevent duplication of benefits, which occurs when victims of floods receive benefits or assistance from more than one source for the same damaged property.
6/2002	The Task Force on The Natural and Beneficial Functions of the Floodplain, created by the National Flood Insurance Reform Act of 1994, concludes that the benefits provided by natural floodplains in flood loss reduction have been overlooked and that the protection and restoration of floodplains must be further integrated into government programs.
9/2002	With the issuance of an interim final rule in the *Federal Register*, FEMA consolidates the Temporary Housing Assistance and Individual and Family Grant Programs into a single program called Federal Assistance to Individuals and Households (IHP) (see 1/2002). FEMA indicates that states will have the option to be active partners in the administration of this new program, which provides a maximum of $25,000. Recipients of assistance from the IHP will be required to maintain flood insurance at least in the amount of the assistance, if they own the affected structure, for as long as the structure exists. The flood insurance requirement is reassigned to all subsequent owners of the flood-damaged address.

Date	
9/2002	In conjunction with the creation of the IHP (see previous entry), FEMA reverses its earlier proposal to eliminate Group Flood Insurance Policies (see 1/2002). FEMA increases the coverage to $25,000 from $14,800, reduces the term from 37 to 36 months, and retains a $200 deductible. The cost of the three-year policy increases to $600 from $200. The cost-sharing arrangements remain unchanged, with the states responsible for 25 percent of the cost and the federal government for 75 percent (funded as part of the IHP grant).