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June 15, 2001

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
FINAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Logan Airside Improvements Planning
Project
PROJECT MUNICIPALITY : Boston/Winthrop
PROJECT WATERSHED : Boston Harbor
EOEA NUMBER : 10458
PROJECT PROPONENT : Massachusetts Port Authority
(Massport)
DATE NOTICED IN MONITOR : May 9, 2001

The Secretary of Environmental Affairs hereby determines that the Final Environmental Impact Report (FEIR) submitted on this project adequately and properly complies with the Massachusetts Environmental Policy Act (MEPA) (M.G.L. c. 30, ss. 61-62H) and with its implementing regulations (301 C.M.R. 11.00). This concludes the MEPA review of this project.

PROJECT DESCRIPTION

As described in the FEIR, the proponent's preferred alternative, Alternative 1A, includes four project elements: a 5,000 foot unidirectional runway (Runway 14/32); a 9,300 foot taxiway between Runways 4L/22R and 4R/22L (the Centerfield Taxiway); other taxiway improvements; and reduction of runway approach minima on Runways 15R, 22L, 27, and 33L. The FEIR also evaluates implementation of Peak Period Pricing (PPP), both as part of Alternative 1, which include all project elements, and as part of Alternative 2, which excludes Runway 14/32. Although the document does not include this measure as part of the preferred alternative, the FEIR makes a tentative commitment to implement PPP at an unspecified time in the future.



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Each of the alternatives was studied for its potential delay benefits and environmental impacts at different projected future annual passenger levels of 29 million and 37.5 million. Each level was studied for a "high fleet" with relatively more operations and a "low fleet" with fewer operations. The 37.5 million passenger scenario also includes a fleet mix with a relatively high percentage of regional jets (RJs), yielding a total number of operations in-between the high and low fleets.

REVIEW PROCESS AND APPROVAL STANDARDS

Under Section 11.08(2) of the MEPA Regulations, during the course of an EIR review I may review any relevant information from any other source to determine whether the EIR is adequate. The proposed project (and especially Runway 14/32) has generated an enormous volume of public comments at both the DEIR and FEIR stage, including oral statements heard at the joint FAA/MEPA meeting in April, hundreds of letters, and thousands of form letters and emails. My staff has met with project supporters and critics, including Massport and its consultants, the FAA, members of the FAA-appointed Panel, the Citizens Advisory Committee (CAC), the "South Shore Coalition" (including the municipalities of Cohasset, Everett, Hingham, Hull, Somerville, and Winthrop), the Greater Boston Chamber of Commerce, and the City of Boston. Because many issues raised relate to airport-wide operations and impacts, I have also referred to documents from the Environmental Status and Planning Report (ESPR) process, EOEA #3247/5146.

MEPA review is an informal process, which does not itself result in any formal adjudicative decision approving or disapproving a project. Section 11.08(8) of the MEPA Regulations requires me to find a FEIR adequate even if certain aspects of the project or issues require additional analysis of technical issues, so long as I find that "the aspects and issues have been clearly described and their nature and general elements analyzed in the EIR or during MEPA review, that the aspects and issues can be fully analyzed prior to any Agency issuing its Section 61 Findings, and that there will be meaningful opportunities for public review of the additional analysis prior to any Agency taking Agency Action on the Project." As described in more detail in this Certificate, after examining the record before me, I find that there is enough information on alternatives, impacts,

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and mitigation to meet that standard.

Prior to project commencement, Massport must prepare and adopt a Section 61 Finding pursuant to MEPA, which details all of the agency's enforceable commitments to actions that will avoid, minimize, or mitigate the project's environmental impacts. The project will also require a Conservation Permit from the Department of Fisheries, Wildlife, and Environmental Law Enforcement, pursuant to the Massachusetts Endangered Species Act.

The Federal Aviation Administration (FAA) is reviewing the project as a Supplemental Draft Environmental Impact Statement (SDEIS) under the National Environmental Policy Act (NEPA). This certificate applies to the review of the project under MEPA only, and does not restrict the ability of the federal government to act on those aspects of the project subject to NEPA. The FAA as the federal proponent must still prepare a Final EIS pursuant to NEPA, and ultimately a Record of Decision following review of the EIS. Should there be any material change to the project (including its mitigation measures) arising out of the federal process, a Notice of Project Change would be filed for public review and comment, and the Section 61 Finding amended, if necessary.

SUMMARY OF KEY FINDINGS

Purpose and Need. Since the Airside Project initiated MEPA review in 1995 there has been a rapid increase in the use of regional jets (RJs), which now account for 16% to 19% of the Logan fleet. Massport has responded in the FEIR to this development by including a "high-RJ" scenario in its analysis of the 37.5 million annual passenger condition. If, as some commenters argue, RJ use has been overestimated, the resulting environmental impacts of the project will also be less, more closely approaching the no-build condition than the build condition. In other words, the FEIR analysis may credibly be viewed as providing a conservative "worst-case" analysis for the purposes of environmental impact review.

Alternatives Analysis and Peak Period Pricing. The preferred alternative identified in the FEIR, 1A, includes all project elements except Peak Period Pricing (PPP). Many of the

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substantive critical comments I have received argue that the preferred alternative should be Alternative 2, which includes PPP and excludes Runway 14/32. After examining the FEIR and the comments, I find that at all levels of growth the project alternative with the greatest benefits and least negative impacts is Alternative 1, which includes both Runway 14/32 and Peak Period Pricing (PPP). Attachment A on the following page summarizes this analysis.

PPP is worth \$49 million a year to the regional economy in reduced delays. More importantly, because PPP will reduce both noise and air pollution impacts on the most immediately affected communities, it fulfills the principal statutory goal of MEPA. The proposed PPP program contains a tightly crafted exemption for Cape Cod, the Islands, and other smaller New England communities, to ensure that they do not lose access to the national air network. Massport needs to commit to putting in place as a project element an enforceable PPP program (or an alternative demand management program with comparable effectiveness). Setting out clear rules well in advance will allow airlines to predict with certainty the costs of their scheduling decisions, and modify their behavior accordingly.

Segmentation and Induced Demand. The FEIR contends that the preferred alternative is intended solely to alleviate delays (particularly during northwest winds) and maximize operational efficiency as passenger levels increase. In other words, the airside projects will accommodate existing and projected demand, not generate additional demand. On the other hand, many commenters clearly see the preferred alternative as an expansion of Logan Airport, and their comments focus on the cumulative impacts of airport-wide operations.

The FAA panel process gave rise to the new suggestion that use of Runway 14/32 should be restricted to northwest wind conditions. The FEIR analysis indicates that although much of the runway's delay benefits could be retained, the environmental benefits of compliance with PRAS goals would be significantly less. Also, this concept lacks support in the public comments. Based on the current lack of information and questions over the effectiveness of this measure, I cannot support it at this time.

It appears that some undefined portion of the projected future

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Attachment A – Relative Benefits and Impacts of Project Alternatives
37.5 million passenger – high RJ fleet scenario

	Delay benefits ¹	Noise distribution benefits ²	Noise impacts ³	Air quality impacts ⁴
Alternative 1 (Runway 14/32 & Peak Period Pricing)	41.1% delay reduction = 152,800 fewer hours of delay	69.4% improvement Index = 943	75 dB: 58 (-74%) 70 dB: 2,020 (-45%) 65dB: 12,470 (+8%) 60 dB: 48,332 (+31%)	1.3% reduction = 95 fewer kg NOx/day
Alternative 1A (Runway 14/32)	29.2% delay reduction = 108,500 fewer hours	62.3% improvement Index = 1,160	75 dB: 58 (-74%) 70 dB: 2,267 (-39%) 65dB: 11,857 (+3%) 60 dB: 50,048 (+36%)	DEIR presumes it to be roughly equivalent to Alternative 1
Alternative 2 (Peak Period Pricing)	18.2% delay reduction = 67,700 fewer hours	6.0% improvement Index = 2,893	See DEIR, Table 6.2-7, for 37.5 million high fleet	0.9% reduction = 65 fewer kg NOx/day
Alternative 4 (no build base case)	372,000 hours of delay	Index = 3,078	75 dB: 222 70 dB: 3,700 65dB: 11,493 60 dB: 36,857	7,092 kg NOx/day

1 Source: FEIR, Table 4.7-2
2 PRAS Performance Index, with 0 = perfect compliance. Source, FEIR, Table 4.7-7
3 Source: FEIR, Table 6.2-20
4 NOx emissions, in kg/day, given for 37.5 million - high fleet. Source: DEIR, Table 6.3-5

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increases in air traffic at Logan may well be induced by this project's enhancement of airport capacity. However, none of the project's opponents have brought forward any method for determining what portion of overall airport operations might be attributable to the Airside project, and I must therefore presume that no such method exists. The Airside project is not the forum for analyzing and mitigating the cumulative impacts of all airport-wide operations; this issue is more properly addressed in the ESPR.

The central environmental question before me, therefore, is not whether this project is accommodating or generating demand per se, but rather whether Massport is operating the airport in a manner that avoids, minimizes, and mitigates environmental impacts in light of its obligations under MEPA. In this certificate I have identified those principal measures identified in the FEIR and/or the ESPR - in particular, the NOx cap, noise mitigation, revamping of the PRAS goals, regionalization, and TMA participation - which, taken together, give me confidence that Massport is able to meet its Section 61 obligations.

Air Quality and the NOx Cap. Logan Airport currently ranks as the sixth largest source of NOx emissions in the Commonwealth, and by 2015 it will become one of the three largest such sources. As passenger levels rise in the future, airport-wide NOx emissions are also projected to rise (unlike overall noise impacts, which will continue to shrink in the long-term). In response, Massport has committed itself to the Air Quality Initiative (AQI): a first-in-the-nation cap on net smog precursors (NOx and VOCs) at or below year 1999 levels, regardless of any future increases in passengers or operations. Without this cap, NOx was projected to increase from 2,444 tons/year in 1999 to 3,150 tons/year by 2015. The costs of the program will be passed through to the airlines, on the "polluter pays" principle.

Noise Impacts. A major benefit of the project, according to the FEIR, is greater compliance with the Preferential Runway Advisory System (PRAS) goals, which are aimed at ensuring a more equitable regional distribution of aircraft noise among all affected communities. Although the broad goals of PRAS are uncontroversial, the CAC's withdrawal of support for the current system shows that a revamping is necessary. Therefore, Massport needs to commit to begin working with the CAC to update the PRAS

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program, as part of its Section 61 Finding, with the proviso that the current system will remain effective until superseded. Massport will also continue to implement and extend its residential soundproofing program, to ensure full access for all residents who are entitled to its benefits (and regardless of whether federal funds are available).

Centerfield Taxiway: To address neighborhood concerns over localized air pollution, odors, and noise, Massport will develop a program designed to maximize the use of single engine taxi procedures by all of its tenant airlines. In addition, Massport shall conduct follow-up air quality monitoring in neighborhoods surrounding the airport and under the flight path of Logan Airport, in consultation with DEP and DPH. This information will provide valuable baseline data for future studies.

Regionalization. Any long-term strategy to contain Logan's impacts requires the successful diversion of travel to other regional airports and rail travel. The FEIR shows that Logan's catchment area is shrinking, and most growth in regional air traffic is taking place at the rapidly growing Providence (T.F. Green) and Manchester airports. Amtrak's new Acela service, launched in December 2000, is projected to divert 1.2 million passengers a year, about one-third of the total New York-Boston market. Based on these trends, the FEIR suggests that future passenger levels at Logan are not likely to attain the projected level of 37.5 million until 2015 (as opposed to the DEIR estimates of 37.5 to 45 million annual passengers by the year 2010). Additional measures are likely to emerge from the recently launched New England Airports System Study. Massport should commit to making all of its Logan Express satellite parking lots and stations available for third-party bus and park'n'ride connections to other regional airports, including Manchester and Providence.

Ground Transportation: Completion of the MBTA's Blue Line modernization, Silver Line, and Urban Ring projects promises to bring the greatest improvements in future transit access to Logan. For its part, Massport will require all Logan employers to join the Airport Transportation Management Association (TMA) at the earliest possible opportunity, and to report in the ESRP on affirmative actions (such as T pass subsidies or other financial support) and HOV mode shares.

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PROJECT PURPOSE AND NEED

According to the FEIR, in year 2000 Logan ranked 12th in total operations nationwide, but 6th in total delays and 2nd in arrival delays. The Final EIR has provided further information on the delay modeling, as a response to a number of substantive comments. The Final EIR has also clarified the base case year used in the delay analysis (and other areas, such as noise and air emissions). The FEIR presents several different methods of calculating delays. All of the methods yield the result that Logan is among the most delay-prone airports in the country (although the methods differ with respect to the absolute magnitude of the delay problem). It is clear that northwest wind conditions are responsible for about one-third of the current delay problem.

Since the Airside Project initiated MEPA review in 1995 there has been a rapid increase in the use of regional jets (RJs), which now account for 16% to 19% of the Logan fleet. Massport has responded in the FEIR to this development by including a "high-RJ" scenario in its analysis of the 37.5 million annual passenger condition. The CAC and other commenters have argued in detail that most of the RJs in the projected future fleet will not use Runway 14/32 because their pilots will be unwilling to land on a 5,000-foot runway. Massport maintains that the FEIR has made appropriate assumptions regarding RJ use, using a sensitivity analysis derived from information in Appendix C. The Air Transport Association has commented in support of Massport's position.

From a transportation planning perspective, the use of Runway 14/32 by RJs has obvious implications for the purpose and need of the project. My role, however, is to review the potential environmental impacts of the project. If RJ use has been overestimated, the resulting environmental impacts of the project will also be less, more closely approaching the no-build condition than the build condition. In other words, the FEIR analysis may credibly be viewed as providing a conservative "worst-case" analysis for the purposes of environmental impact review. Based on the foregoing, I find that issues of purpose and need have been adequately addressed for the purposes of MEPA review.

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ALTERNATIVES ANALYSIS AND PEAK PERIOD PRICING

As noted above, the alternatives analysis in the EIR has studied various combinations of project elements. The preferred alternative identified in the FEIR, 1A, includes all project elements except Peak Period Pricing (PPP). Many of the substantive critical comments I have received argue that the preferred alternative should be Alternative 2, which includes PPP and excludes Runway 14/32.

As described in the FEIR, PPP is a demand management tool that reduces airport delays by ensuring that demand does not exceed capacity. The FEIR analysis presumes the imposition of a flat landing fee surcharge, irrespective of aircraft weight, for times when airline scheduling exceeds 110 operations/hour (92% of the maximum capacity of 120 operations/hour) during peak hours (such as 2 PM to 8 PM). This financial disincentive can reduce delays by modifying airline scheduling behavior. By reducing taxiway delays, PPP is also projected to reduce air pollution and noise, and improve compliance with the PRAS noise distribution goals.

Alternatives analysis is at the core of MEPA review. Under the MEPA Regulations, an EIR must examine the negative and positive impacts of "all feasible alternatives." Section 11.07(6)(f, h). At the end of the review process, the proponent's Section 61 Finding must show, in its selection of a preferred alternative, that it has taken all feasible measures to avoid or minimize environmental impacts. Sections 11.07(6)(k), 11.12(5).

After examining the FEIR and the comments, I find that the project alternative that best meets this test is Alternative 1, which includes both Runway 14/32 and Peak Period Pricing. The EIR analysis shows that under slower growth scenarios (37.5 million passengers, low fleet), Alternative 1A (Runway 14/32) yields greater delay benefits, with a smaller benefit accruing to PPP. As annual operations increase further (37.5 million, high fleet, and 45 million), implementing PPP alone (Alternative 2) leads to greater delay reduction benefits equaling or exceeding those of Runway 14/32. Most importantly, the DEIR and FEIR analysis shows that at all levels of growth, the combination of Runway 14/32 and PPP (Alternative 1) produces the greatest delay benefits and the least environmental impacts. Attachment A,

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attached to this certificate, summarizes the relative delay benefits, noise distribution benefits, noise impacts, and air quality impacts of Alternatives 1, 1A, and 2, compared with the no-build base case (Alternative 4).

The FEIR gives two reasons why PPP is not part of the preferred alternative: first, that it would impose economic costs on regional carriers and small communities, and second, that overscheduling does not currently exist at Logan.

The rebuttal to the first argument is contained in the FEIR document itself. In response to comments on the DEIR and my certificate, the FEIR re-analyzes the delay effects of a PPP program that contains a tightly crafted exemption for Cape Cod, the Islands, and other smaller New England communities, to ensure that they do not lose access to the national air network. The analysis shows that the delay reduction benefits of PPP are reduced somewhat in the high-RJ scenario, but still substantial.

In purely economic terms, the additional 44,000 hours of delay eliminated by PPP are worth \$49 million a year to the regional economy, by Massport and FAA's own calculations.¹ More importantly, because PPP will reduce both noise and air pollution impacts on the most immediately affected communities, it fulfills the principal statutory goal of MEPA.

I also do not find compelling the contention that PPP need not be implemented until later because overscheduling does not currently exist at Logan. The DEIR shows a real, if small, delay benefit from PPP even at the lowest level of increases in operations; the 29 million - low fleet scenario. Although the FEIR recognizes that PPP will become necessary at a future date, it offers limited detail on the proposed PPP monitoring system, or the trigger mechanism for implementing the program. I am concerned that the proposed arrangement may lead to a PPP program that is implemented too late and under conditions too uncertain to avoid unnecessary delays and unnecessary impacts.

Therefore, in its Section 61 Finding, Massport needs to commit to putting in place as a project element an enforceable PPP program (or an alternative demand management program with comparable effectiveness). Setting out clear rules well in advance will

¹ Each hour of delay is calculated to cost \$1,115. FEIR, Section 1.6.

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allow airlines to predict with certainty the costs of their scheduling decisions, and modify their behavior accordingly. Based on the foregoing, I find that issues of project alternatives have been adequately addressed for the purposes of MEPA review.

SEGMENTATION AND INDUCED DEMAND

The FEIR contends that the preferred alternative is intended solely to alleviate delays (particularly during northwest winds) and maximize operational efficiency as passenger levels increase. In other words, the airside projects will accommodate existing and projected demand, not generate additional demand. On the other hand, many commenters clearly see the preferred alternative as an expansion of Logan Airport, and their comments focus on the cumulative impacts of airport-wide operations. In the context of MEPA review, this raises two separate, but related questions: First, does this EIR represent an improper segmentation of MEPA review? And second, is the Airside project capacity neutral, or will it induce demand for additional airport use, which will in turn cause increased levels of environmental impacts?

Project segmentation and the ESPR

I have received numerous comments suggesting that the review of the airside projects has been improperly segmented under MEPA (and NEPA) from the review of airport operations as a whole. As stated in past certificates, the Environmental Status and Planning Report (ESPR) (formerly the Generic EIR, EOEA #3247/5146) provides a "big picture" cumulative analysis of Logan operations, impacts, and mitigation. It complements the project-specific EIR for the airside projects, helps to focus the review process of individual EIRs, and ensures that segmented project review does not occur in the context of MEPA review at Logan Airport. (Because the federal review process does not include the formal equivalent of the ESPR, my comments regarding segmentation are necessarily limited to the state review process.)

As I did in the DEIR certificate, I have treated comments received in this review as potentially applicable to the ESPR, as well as to the Airside EIR, and I have given specific instructions to Massport on issues that must be addressed in the next ESPR filing, including more detailed information on TMA

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participation, and more detailed monitoring of localized air quality impacts. I have also made reference to measures initially developed within the ESPR - notably, the Air Quality Initiative discussed below - as evidence that Massport is able to meet its Section 61 obligations.

Capacity neutrality

In determining Massport's obligation to avoid or minimize and mitigate environmental impacts, one must determine what the impacts fairly attributable to this project are. There is no precise answer to this question. As I have previously stated, I am not convinced that any alternative containing Runway 14/32 is purely a capacity neutral airfield enhancement, as the FEIR contends.

The FEIR concludes unequivocally that the Airside project will not increase Logan's capacity. This conclusion is also stated in the FAA's recent benchmark study of major U.S. airports. It is clear that long-term increase in air passengers and operations are driven at least in part by national and regional market forces, independent of local conditions. Since the 1970s the total numbers of passengers and operations at Logan have more than doubled -- without the benefit of any additional runway capacity. It is impossible to determine with any precision whether this trend will continue unabated into the future, as Massport and the FAA contend, or whether the airport is nearing saturation in its current condition, as project opponents contend.

However, although the maximum "capacity" of the airport will remain at approximately 120 operations/hour with or without the airside improvements, the construction of Runway 14/32 will allow Logan to operate at or near 120 operations/hour for a greater proportion of the year than it currently does, by providing an additional high-capacity runway configuration that currently does not exist. The CAC's comment letter analyzes the projected increase on an annual basis, using a weighted average of different wind conditions. It concludes that Runway 14/32 will increase the airport's average capacity from 93 operations/hour to 110.

Moreover, if delays represent a problem as critical as those

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presented in the FEIR, there may well be some latent demand generated by the airside project. I have received numerous comment letters from local businesses favoring the project, who contend that current delays are hurting their business by making air travel to Boston less attractive. Clearly, these commenters believe that the airside improvements will serve a currently unsatisfied demand.

The FAA panel process gave rise to the new suggestion that if use of Runway 14/32 were restricted to northwest wind conditions, there would be little or no increase in airport capacity. The FEIR analysis of this proposal indicates that although much of the delay benefits of the runway could be retained, the environmental benefits of compliance with PRAS goals would be significantly less. (Other environmental impacts were not studied.) I also note that the concept lacks support in the public comments; neither the City of Boston, nor the CAC, nor the South Shore Coalition, have endorsed the concept. Based on the current lack of information and questions over the effectiveness of this measure, I cannot support it at this time.

In conclusion, it appears that some undefined portion of the projected future increases in air traffic at Logan may well be induced by this project's enhancement of airport capacity. However, none of the project's opponents have brought forward any method for determining what portion of overall airport operations might be attributable to the Airside project, and I must therefore presume that no such method exists. The Airside project is not the forum for analyzing and mitigating the cumulative impacts of all airport-wide operations; these impacts are more properly addressed in the ESPR. This approach is consistent with my DEIR certificate, and the instructions I gave for preparation of the FEIR.

The central environmental question before me, therefore, is not whether this project is accommodating or generating demand per se, but rather whether Massport is operating the airport in a manner that avoids, minimizes, and mitigates environmental impacts in light of its obligations under MEPA. In this certificate I have identified those principal measures identified in the FEIR and/or the ESPR - in particular, the NOx cap, noise mitigation, revamping of the PRAS goals, regionalization, and TMA participation - which, taken together, give me confidence that

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Massport is able to meet its Section 61 obligations.

Based on the foregoing, I find that issues of segmentation and induced demand have been adequately addressed for purposes of MEPA review.

AIR QUALITY AND THE NOX CAP

The air pollution impacts of operations at Logan Airport are both invisible and silent. These impacts have received far less attention in the public comments than noise. Nevertheless, I am extremely concerned over this issue.

The FEIR analysis shows that, due to greater operating efficiencies, each of the project alternatives produce air quality benefits, compared with the no-build case. At the same time, as passenger levels rise in the future, airport-wide NOx emissions are also projected to rise (unlike overall noise impacts, which will continue to shrink in the long-term). Aircraft emissions are the only mobile air pollution sources included in the State Implementation Plan (SIP) emissions inventory that are not slated for meaningful near- or long-term emissions reductions. Logan Airport currently ranks as the sixth largest source of NO_x emissions in the Commonwealth. With Governor Swift's recent imposition of new regulations on existing power plants (the so-called "filthy five"), by 2015 Logan will become one of the three largest such sources.

For these reasons, in the DEIR certificate I required Massport to use the ESPR process to examine the feasibility of a market-based, revenue-neutral program to control air pollution. In response, Massport has voluntarily committed itself to the Air Quality Initiative (AQI), developed through the ESPR and described in a report that was noticed in the *Environmental Monitor* on April 11, 2001. I want to commend Massport and its Executive Director, Virginia Buckingham, for taking this step. The AQI constitutes a first-in-the-nation airport cap on net smog precursors (NO_x and VOCs) at or below year 1999 levels, regardless of any future increases in passengers or operations. Without this cap, NO_x was projected to rise from 2,444 tons/year in 1999 to 3,150 tons/year by 2015.

About one-third of the necessary reductions will occur on-

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airport, chiefly through the conversion of ground service equipment to clean fuels. The balance will be obtained off-site, funded by Massport and carried out through an enforceable system of emissions credits. The system will reward air quality improvements in the most affected neighboring communities, favoring mobile sources (such as trash haulers and school bus fleets). The costs of the program will not be borne by the taxpayers, but will be passed through to the airlines, on the "polluter pays" principle.

Massport has agreed to work with EOEA, through the ESPR process, to determine how best to structure an effective and enforceable AQI that will ensure the avoidance of air pollution impacts. I expect Massport to solicit project submissions from local governments and community groups, which will be reviewed in an objective, science-based process by a neutral organization such as NESCAUM. Based on the foregoing, I find that issues of air quality impacts have been adequately addressed for purposes of MEPA review.

NOISE

The FEIR includes a detailed assessment of the noise impacts of the proposed Runway 14/32 and the other airside elements. The net result of Massport's preferred alternative is to reduce the number of people modeled to be exposed to the highest (>70 dB DNL) levels of noise. At the same time, as a result of greater compliance with the PRAS goals (see below), the project is projected to produce a relatively small increase in the number of people exposed to noise in the 65-70 dB DNL range, and a somewhat larger increase in the 60-65 dB DNL range, in each case compared with the no-build case. The preferred alternative also redistributes the exposed population; for example, about 11% of the people within the 65-70 dB contour will be newly included. I want to emphasize that these changes are relative among the different project alternatives; in absolute terms, all alternatives produce an overall decrease in the exposed population at all noise levels, compared with current (1998) conditions.

Restricting Night-time Flights and Hush-kitted Aircraft.

The ESPR shows that the phasing out of stage 2 aircraft by the

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end of 1999 has produced a decline in the total annual noise produced by Logan aircraft. In the longer term, however, both total annual noise and night-time noise are projected to increase as the number of flights in an all Stage 3 fleet rises. Moreover, many of the aircraft currently operating at Logan are actually stage 2 aircraft that have received mechanical alterations ("hush-kits") to meet the minimum requirements for stage 3 aircraft. These planes are significantly noisier than new aircraft specifically designed to meet stage 3 requirements. Many scheduled nighttime flights, and most in the very early morning hours, are cargo operations in hushkitted Stage 2 aircraft. Thus, the noisiest flights at Logan tend to occur at those times when neighboring communities are most affected by noise. Yet because these planes technically meet Stage 3 specifications, Massport cannot impose access restrictions on them pursuant to the Airport Noise and Capacity Act of 1990 (ANCA).²

ANCA effectively requires approval by the Federal Aviation Administration (FAA) (under FAR Part 161) for any local or state noise rules that would restrict the number or schedule of Stage 3 aircraft (except for restrictions designed to correct an overscheduling condition). The FAA has acknowledged that no Part 161 approval of this type has ever been granted, and many commenters have referred to the FAA's Part 161 process as one that is "designed to fail." The FEIR and Proposed Section 61 Findings commit Massport to working with airlines to voluntarily end the use of hushkitted aircraft at Logan. To date, U.S. Airways and the Delta Shuttle have already converted their Logan fleets. In addition, Massport is required in the ESPR process to pursue a Part 161 waiver for night-time restrictions.

Compliance with PRAS Goals

The Preferential Runway Advisory System (PRAS) goals is a set of voluntary targets for FAA runway assignments, aimed at ensuring a more equitable regional distribution of aircraft noise among all affected communities, at avoiding the prolonged dwell or persistence of noise over any one community, and at routing

² Several members of the Massachusetts Congressional delegation have commented on the Airside project. I urge them to maintain an active interest in areas such as this, in which otherwise feasible mitigation for airport impacts is presumed by federal law.

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flights over water. The goals were initially developed in the early 1980s, through consultation among Massport and certain affected communities. The FEIR demonstrates that the preferred alternative (Alternative 1A) will significantly improve compliance with PRAS goals, and that adding Peak Period Pricing (Alternative 1) will improve compliance still further. (61% and 69% improvements, respectively -- see Attachment A.) The FEIR includes protocols for monitoring adherence to the PRAS goals, including quarterly reports, plus annual statements in the ESPR update.

The general goals of the PRAS program appear to be uncontroversial. However, setting exact numerical targets for the PRAS involves difficult judgments about the relative weighting of different levels and types of noise impacts upon both neighboring and more distant communities. These judgments are essentially political in nature, and require consensus among the participating communities. Commenters have noted that changes in land use patterns and residential densities may have altered the validity of the assumptions under which the PRAS program was developed. For example, greater PRAS compliance may lead to more flights from Runway 27 over the South Boston waterfront, now planned for extensive new parks and housing. The CAC has stated that it no longer supports the current PRAS system, and that the system needs to be revamped.

Because of the CAC's withdrawal of support, it is clear that a revamping of the system is necessary. At the same time, to make agreement upon a new set of goals a condition of project commencement might serve as an incentive for delay. Therefore, I am requiring Massport to commit to begin working with the CAC to update the PRAS program, as part of its Section 61 Finding, with the proviso that the current system will remain effective until superseded.

Soundproofing.

The primary mitigation commitment for noise impacts described in the FEIR is Massport's federally funded program of residential acoustical treatment (the "soundproofing" program). While I recognize the limitations of the residential soundproofing program, I believe that the program is and will continue to be an important part of Massport's noise mitigation commitments. In the

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DEIR Certificate, I required that the Final EIR and the Proposed Section 61 Finding contain feasible implementation measures to ensure full access to the soundproofing program for all residents who are entitled to its benefits.

Massport uses the federal criteria of residing within a 65 dB DNL contour for determining soundproofing eligibility. I want to underscore that under state law, soundproofing must be implemented as a feasible mitigation measure, regardless of whether federal funds are available. Previous certificates and comments have noted that the modeled noise contours do not exactly match the measured field values, and that they appear to somewhat underestimate Day-Night Levels (DNL) of sound. I required that the Final EIR examine further refinements to its contours that would ensure full access to soundproofing for all affected residents. In response, Massport has committed to providing soundproofing for all residents currently within the 65 dB contour, even if the redistribution of noise by this project would otherwise exclude them in the future.

I also noted that the soundproofing program requires that structures within the 65 dB DNL contour meet certain code requirements prior to receiving acoustical treatments. In response, Massport has committed to funding building code upgrades to the extent necessary to ensure that low income residents with substandard housing receive equal access to noise mitigation.

Based on the foregoing, I find that issues of noise impacts have been adequately addressed for purposes of MEPA review.

CENTERFIELD TAXIWAY

The Centerfield Taxiway consists of a 9,300-foot taxiway between runways 4R/22L and 4L/22R. According to the FEIR, the taxiway will allow for alternative taxi routings and more efficient movement between runways and terminal areas. The analysis also shows delay reduction benefits, and associated noise and air quality improvements. The construction of the Centerfield Taxiway will involve the "taking" of the state-endangered Upland Sandpiper (*Bartramia longicauda*), and hence requires permitting under the Massachusetts Endangered Species Act (see the Rare Species section below.)

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The construction of the Centerfield Taxiway has generated concern, particularly from the close-in communities, over potential for increased air pollution, odor, and noise impacts. Taxiing procedures employed by individual airlines can have a major impact on local air quality in neighborhoods adjacent to the airport. The use of single engine taxiing procedures can significantly reduce air emissions and noise associated with taxiway operations. Currently at Logan, Delta Airlines has a commitment to use single engine taxiing whenever feasible. Expanding this practice to other airlines could yield significant environmental benefits. Massport, in its Section 61 Finding, needs to commit to developing a program designed to maximize the use of single engine taxi procedures by all of its tenant airlines.

In addition, within the ESPR process Massport shall conduct follow-up air quality monitoring in neighborhoods surrounding the airport and under the flight path of Logan Airport. This information will be shared with the Department of Public Health (DPH) and reported in the ESPR update, to provide baseline data for future studies. Massport should consult with DEP and MDPH in developing an air quality monitoring protocol using periodic air sampling in residential areas with a special focus on air toxics. Massport should also complete within the next five years a special air toxics monitoring study that will include a public meeting to discuss the results. Based on the foregoing, I find that issues of centerfield taxiway impacts have been adequately addressed for purposes of MEPA review.

REGIONALIZATION

The FEIR includes a detailed discussion of Logan's role in the regional transportation network, which also includes the rapidly growing regional airports in Providence (5.15 million passengers in 1999, up 11%) and Manchester, NH (2.83 million passengers in 1999, up 45%), and the facility at Worcester now being operated by Massport (106,000 passengers in 2000, up more than 100%). Amtrak's new Acela service, which began in December 2000, is projected to divert 1.2 million passengers a year, about one-third of the total New York-Boston market.³ The FEIR shows that

³ I note that the Federal Railroad Administration, Amtrak, and others have voiced concerns over the potential impacts of city-sponsored air rights

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Logan's catchment area is shrinking, and most growth in regional air traffic is taking place at Providence (T.F. Green Airport) and Manchester. This diversion of passengers to regional alternatives is the major factor in the lower growth projections for Logan. The FEIR suggests that future passenger levels at Logan are not likely to attain the projected level of 37.5 million until 2015 (as opposed to the DEIR estimates of 37.5 to 45 million annual passengers by the year 2010).

The FEIR reports on the current status of ground access improvements to all four airports, as proposed by state transportation agencies in Massachusetts, New Hampshire, and Rhode Island. Massachusetts-sponsored projects include:

- MBTA rail service to T.F. Green Airport at Providence.
- MHD's widening of Route 3 from Route 128 to the New Hampshire border by MHD (MEPA review complete, construction started).
- Better roadway access to Worcester Airport (EIR under preparation by MHD).

As required in the DEIR certificate, the document quantifies the effects of these measures upon projected passenger levels at each of the airports, including Logan (excluding the uncertain benefits of teleconferencing), and it summarizes existing information on the predicted environmental impacts at each facility.

Massport's efforts at regionalization have won favorable comment. Nonetheless, many comments and the FEIR itself state that "more can be done" to achieve regionalization of air traffic in New England. Additional measures are likely to emerge from the New England Airports System Study, recently launched by Massport, the FAA, and the other regional airport directors. There is, however, one concrete step that many commenters have suggested could be taken in the near-term. In its Section 61 Findings, Massport should commit to making all of its Logan Express satellite parking lots and stations available for third-party bus and park'n'ride connections to other regional airports, including Manchester and Providence. Based on the foregoing, I find that

development at Boston's South Station upon the Acela. In my DEIR certificate on that project (EOEA #9131) I required a detailed study of the potential construction period and permanent impacts on Amtrak and MBTA service, to protect the station's transportation capacity.

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issues of regionalization have been adequately addressed for the purposes of MEPA review.

GROUND TRANSPORTATION

As stated in the DEIR Certificate, I did not require a detailed analysis of Massport's ground transportation strategy within the FEIR, both because the ESPR contains a substantial body of analysis of ground transportation issues, and because the West Garage Section 61 Finding includes enforceable commitments for airport-wide ground transportation mitigation.

The FEIR does describe proposed MBTA improvements in transit access to Logan, including:

- AITC (EOEA #10235) - construction of the Silver Line tunnel is underway, and Massport has purchased 8 vehicles for AITC use.
 - Blue Line modernization (EOEA #8772) - construction of the new Logan station is underway.
 - Urban Ring - ENF will be filed with the MEPA Office in July.
- These projects are key elements in avoiding potential traffic impacts upon adjacent neighborhoods in Boston, Chelsea, and other affected communities.

I want to highlight two MBTA ground transportation projects with particular benefit for Logan, both of which are key transit mitigation commitments for the Central Artery under the terms of the consent order executed with EOTC in September 2000: the Urban Ring and the Silver Line. The Urban Ring project, scheduled to begin MEPA review in July, promises not only to improve transit access to Logan, but also to enhance mobility, economic development, and the quality of life in many of the communities most affected by the airport -- East Boston, South Boston, Roxbury, Cambridge, Somerville, Everett, and Chelsea. As part of the Phase I implementation steps for the Urban Ring, Massport must work closely with the MBTA to ensure that the project design provides the best possible access to Logan for travelers and employees, and that rights of way are properly identified and protected.

The AITC is linked with the South Boston phase of the Silver Line, extending from South Station to the Ted Williams Tunnel. I am appreciative of Massport's commitment, in the context of MEPA

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review for the Commonwealth Flats Development Area (EOEA #11882), to undertake a feasibility study for the grade separation of the Silver Line/AITC vehicles at D Street. I call upon public and private parties to ensure that implementation measures arising from the study are carried out in a timely fashion. Improvements to the D Street intersection will greatly benefit both the South Boston waterfront redevelopment and transit access to Logan.

Finally, comments from the City of Boston and others urge that employer participation in the Logan Transportation Management Association (TMA) should be more widespread and effective, as it is at the Longwood Medical Area. I agree with these comments. TMA participation is an effective mitigation measure within Massport's control that can significantly affect travel behavior and reduce traffic congestion. To date, the TMA was formed as a mitigation requirement for the West Garage project, and employer participation has been tracked through the ESPR. In the Section 61 Finding, Massport needs to detail its commitment to making TMA membership mandatory by all Logan employers at the earliest possible opportunity. Upcoming ESPR reports should document, in greater detail, participation by major employers, affirmative actions (specifically including T pass subsidies or other financial support), and best available estimates of the HOV mode share for employees. Based on the foregoing, I find that issues of ground transportation have been adequately addressed for purposes of MEPA review.

UNIDIRECTIONALITY OF RUNWAY 14/32

Ever since the Airside Improvements project was first proposed, Massport has publicly committed to keeping Runway 14/32 as a unidirectional runway. The FEIR analyzes only the environmental impacts of a unidirectional Runway 14/32, with both take offs and landings following an easterly flight path largely over water (although portions of the South Shore do experience some impacts from "over-water" operations). Any proposal to use the runway in a bidirectional manner would need additional MEPA review, including the scoping, preparation, and review of an entirely new EIR document. The Proposed Section 61 Findings in the FEIR include this enforceable commitment to unidirectionality. The Findings also potentially commit Massport to enter into a binding agreement with appropriate governmental and/or community organizations. Based on the foregoing, I find that issues of

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unidirectionality have been adequately addressed for purposes of MEPA review.

REDUCED APPROACH MINIMA

The project includes a proposed reduction in approach minima at runways 15R, 22L, 27, and 33L. The approach minimum is the lowest point along the glide slope during the landing at which point the pilot must make a decision to commit to a landing or execute a missed approach procedure. Reducing the approach minima does not change the height at which planes actually fly.

The FEIR demonstrates that the reduction in approach minima will lead to modest delay reduction benefits and improve operational flexibility, mostly during poor weather. The reduction in approach minima will also enhance ability to meet PRAS goals, by providing an alternative to landings on runway 4R during poor conditions. The lowered minima should also slightly reduce the number of overflights of close-in communities, by reducing the number of missed approaches. I find that the environmental impacts of the proposed reductions in approach minima have been adequately studied for purposes of MEPA review.

ENVIRONMENTAL JUSTICE

The environmental justice analysis contained in the FEIR addresses the federal requirements of Executive Order 12,898 and Department of Transportation regulations, and it responds to my guidance in the DEIR certificate.⁴ The FEIR compares the population affected by noise impacts over 65 dB with that of Boston and the rest of Suffolk County. It concludes that the project causes no disproportionate impacts, because both minority and low-income populations are lower in the affected area than in Suffolk County as a whole. Further, the FEIR concludes that any adverse impacts are adequately mitigated by the soundproofing program.

⁴ EOEA's draft Environmental Justice Policy, which was issued in December 2000, is currently undergoing public review and comment, and it has not yet been finalized. It therefore does not apply to this or other projects undergoing current MEPA review. However, my approach to environmental justice issues, discussed above, are consistent with the spirit and intent of the policy.

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As discussed in the DEIR certificate, I have also taken comments regarding environmental justice to reflect a broader concern with fairness and the cumulative impacts of airport-wide operations. Therefore, in addition to requiring the further analysis discussed above, in my review of the FEIR and the ESPR I have focused on concrete measures, such as the NOx cap and air quality monitoring described in this certificate, that will maintain or reduce the existing envelope of cumulative environmental impacts from airport operations. Based on the foregoing, I find that issues of environmental justice have been adequately addressed for purposes of MEPA review.

CONSTRUCTION PERIOD

As required in the DEIR certificate, the FEIR includes a detailed analysis of construction period impacts (including the cumulative impacts of other East Boston projects) and a construction management plan that quantifies the number of daily and total truck trips. Massport will require its contractors to retrofit existing heavy construction equipment with emissions control technology, in accordance with DEP's Clean Air Construction Initiative. Based on the foregoing, I find that issues of construction period impacts have been adequately addressed for purposes of MEPA review.

RARE SPECIES

The Centerfield Taxiway will alter nesting and feeding habitat of the state endangered Upland Sandpiper (*Bartramia longicauda*). Because the project will constitute the "taking" of a state-protected species under the Massachusetts Endangered Species Act, it will require issuance of a Conservation Permit by the Natural Heritage Program. The FEIR commits to both on-site and off-site mitigation for rare species impacts, including 150 acres of habitat restoration proposed at the Massachusetts Military Reservation. If for any reason the proposed off-site mitigation is not implemented, alternative mitigation would have to be identified and reviewed, in the form of a Notice of Project Change. Based on the foregoing, I find that issues of rare species impacts have been adequately addressed for purposes of MEPA review.

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NOTICE OF PROJECT CHANGE

At the time the FEIR was filed, Massport also filed a Notice of Project Change (NPC), based upon the three-year lapse in time since the filing of the ENF, and it requested a determination that no further review was required for the change. The South Shore Coalition and other commenters have requested further review because of the time lapse. The substantive issues raised by these comments, including purpose and need, regionalization, alternatives, segmentation, air quality, noise, and ground transportation, are discussed elsewhere in this certificate. After considering the documents and the comments in light of the factors set forth in Section 11.10(6) of the MEPA Regulations, I find that any issues arising out of the lapse of time have been adequately addressed in the FEIR or the ESPR, as applicable.

SECTION 61 FINDINGS

As required by the Act, the Section 61 Findings that will be adopted by Massport, prior to project commencement, must contain all of the mitigation commitments that emerge from the EIR process. The FEIR includes Proposed Section 61 Findings for each area of impact associated with the project. These Findings must be revised to incorporate all additional mitigations required under this certificate, as well as any further commitments within MEPA jurisdiction that may arise during the federal review process.

6/15/01
DATE



Bob Durand

Attachment A: Relative Benefits and Impacts of Project
Alternatives
Attachment B: List of comments received

rd/jhw/asp