

Information for
Polar Programs
Postdoctoral Research Fellows

National Science Foundation
Office of Polar Programs
Revised July 6, 2005

IMPORTANT

This booklet outlines the terms and conditions of your National Science Foundation Polar Programs Postdoctoral Research Fellowship and provides general information for use during your tenure. Read it carefully and refer to it whenever you have a question about your Fellowship. If you lose this booklet, we will send you another upon request. The booklet and the included forms (which are listed in Section 15 of this document) can also be found online at OPP's postdoc page: http://www.nsf.gov/od/opp/post_doc/pd_resources.jsp.

Address all correspondence to:

Polar Programs Postdoctoral Fellowships
Office of Polar Programs
National Science Foundation
Suite 755
4201 Wilson Boulevard
Arlington, VA 22230

You may also contact the program via e-mail at: oppfellow@nsf.gov. The telephone number for the Office of Polar Programs is (703) 292-8030 and the FAX number is (703) 292-9081.

As a recipient of NSF funds, you are responsible for fulfilling the academic and fiscal obligations of your award.

Failure on the part of a Fellow to observe all the terms and conditions of a Fellowship award constitutes sufficient grounds for its revocation by the Foundation.

1. INTRODUCTION

Your National Science Foundation Polar Programs Postdoctoral Research Fellowship has been awarded by the National Science Foundation in recognition of your accomplishments to date, and with the hope that the experience you will obtain during the tenure of your Fellowship will enhance your development as a scientist and educator and contribute to the scientific and educational efforts of the United States. Upon acceptance of an award under this program, the Foundation will issue an award letter based on the information submitted in your Fellowship application. This award letter will be accompanied by a copy of this handbook and the list of forms listed in Section 15.

2. FELLOWSHIP INSTITUTION

As a Fellow you must, by law, affiliate with an appropriate **United States** institution as described in the Program Solicitation for the Postdoctoral Fellowships in Polar Regions Research (04-566) during the entire Fellowship tenure, and is responsible for making all arrangements for such affiliation with the Fellowship Institution. A clear relationship should be established with the chosen

institution before beginning tenure, thus assuring both the Fellow and the Foundation that it will be possible to carry out the program for which the Fellowship was awarded.

If it becomes necessary or desirable to seek affiliation with an institution other than the one listed in the application, you must request **in writing** permission from the Foundation, stating the reasons for the proposed change and explaining the appropriateness of the new institution for the proposed plan for research and education. **(See Section 5 of this document for more details.)** This must be done **before** final arrangements with the new institution are completed. You may not enter on tenure until the Foundation approves all changes, including the new sponsoring scientist.

Before you enter on tenure at an institution where you presently hold a full-time position or appointment, the Foundation must receive a letter from an appropriate official stating that you will be relieved of all prior institutional duties during the tenure of the Fellowship.

3. SCIENTIFIC ADVISOR

Each Postdoctoral Fellow will arrange for a staff member at the Fellowship Institution to serve as sponsoring senior scientist. Usually this individual will be a professor or staff scientist with whom you will be working closely in your Fellowship program. This advisor will assist in the planning and initiation of your program of study and research and will work closely with you to develop your skills and future independent research career. The scientific advisor will be the institutional representative responsible for your activities during tenure.

Starting and Termination Certificates used in connection with the Fellowship should be signed by this scientific advisor, or if absent, by an appropriate official of the institution.

Any questions relating to your status at the Fellowship Institution which the scientific advisor cannot answer should be referred for resolution to other appropriate officials within the Fellowship Institution, such as a department chair, Dean of the Graduate school, or a designated institutional representative.

4. ENTRANCE UPON TENURE

You must advise the Office of Polar Programs of the date you will begin Fellowship activities using the Postdoctoral Fellowship Acceptance Form. A grantee who is unable to begin tenure on the specified date must request a new start date from the Office of Polar Programs as soon as possible.

Before you may enter upon tenure of a Postdoctoral Fellowship, the Foundation must have on record the date on which your Ph.D. was received. If your Ph.D. is not received prior to the starting date of tenure, you, before beginning Fellowship tenure, must submit evidence that all the requirements for the degree have been completed. A certification form for this purpose is enclosed with the mailing of your award letter.

A set of starting materials, including a Fellowship Starting Certificate, NSF Form 349 (1-02), will be sent to you with the mailing of your award letter. This form must be completed and returned to NSF

before any Fellowship funds can be received. This and all other forms mailed with the award letter are listed in Section 15 of this document.

Fellowship tenure starts on the date a Fellow begins Fellowship activities and terminates on the date Fellowship activities are completed at the Fellowship Institution, as indicated on the Starting and Termination Certificates, both of which must be signed by the sponsoring senior scientist or by an appropriate official of the institution. This is a requirement which the Foundation must ask Fellows to fulfill in order to comply with governmental accounting regulations. If a Fellow interrupts tenure or affiliates with more than one institution, Starting and Termination Certificates are required **for each portion of tenure. Stipend payments (with the exception described in section 6c below) will not be authorized until a Starting Certificate has been received by the Foundation.**

5. PROGRAM CHANGES

Any major change in the program of research or education from that proposed at the time of application, and any change in tenure, or in the institution(s) with which you are associated, must receive the **prior** approval of the National Science Foundation. Before completion of the first year of Fellowship tenure, changes in the Fellowship Institution will be approved only under unusual circumstances. Since the likely impact of both the sponsoring scientist and the Fellowship Institution on the professional development of the Fellow was an important factor in the proposal evaluation process, the selection of these, especially for the first year of Fellowship tenure, will normally be viewed as a commitment on the part of the applicant to fulfill the plan for research and education as outlined in the original application. Although it is expected that you will carry out the program as approved at the time of application, **minor** changes may be made at your discretion and with concurrence by the scientific advisor. However, any **major** changes must be outlined and justified in full in writing so that a determination may be made by the Foundation as to whether the new program falls within the intent of the award.

6. STIPENDS

a. Amount. The stipend will be paid at a monthly rate which totals \$45,000 for each calendar year of the Fellowship tenure.

b. Payments. Stipend payments will be authorized after a properly completed Fellowship Starting Certificate, NSF Form 349 (1-02), and a completed ACH Vendor Enrollment Form SF-3881 have been received by the Foundation. Payments will be made in monthly installments during the tenure of the Fellowship, according to the schedule of payments submitted and approved by the Foundation (Fellowship Payment Schedule, NSF Form 1367 (3-98)). Stipends will be paid using the Vendor Express Payment System, which involves electronic funds transfer (EFT) of the stipend payments to your bank account via the Federal Reserve System. Transferring funds electronically requires your bank ABA number and your bank account number. The ABA number is a 9-digit number assigned to each bank by the American Bankers Association. To provide this information, you should complete Form SF-3881 and return it to the Foundation together with the Starting Certificate. The first stipend will be paid as soon as possible after the completed forms are received by the Foundation. Although every effort will be made to process the first payment immediately upon

receipt of the Starting Certificate and Form SF-3881, it may not be received until five to seven weeks after the start of the Fellowship tenure. It will therefore be necessary for you to make full financial provision for this interim period. You are encouraged to make arrangements for accounts prior to the start of their Fellowship tenure, so that initial processing may proceed without delay. In addition, **Fellows are requested to use the same account for the entire period of their Fellowship tenure, as any changes may involve significant delays in the processing of stipends.**

Any changes or interruptions in stipend payment, or any other miscellaneous actions should be requested and described on the Fellowship Action Form, NSF Form 383 (2-97), also sent with the starting materials.

c. Initial Stipend Advance. Because Starting Certificates are not to be submitted until after tenure begins, you may request payment of the first month's stipend in advance, in order to receive assistance during the processing period. A form to request this advance, Request for Stipend Advance, NSF Form 929 (12-00), will be sent with starting materials. In order to be processed, requests for advances must be accompanied by Form SF-3881, which is described in the above paragraph. **If you receive an advance and do not subsequently begin tenure as planned, the amount of the advance must be returned to NSF immediately.**

d. Delayed or Lost Stipend Payment. If a stipend payment is not received on time, inquiry should be made at your bank to see if the payment can be traced. If it is still missing after a week or so, you should write the Foundation via electronic mail or at the address given on page one of this booklet requesting that the payment be stopped and that a replacement be processed. The Foundation will forward the appropriate fiscal information to the Treasury Department. In addition, an official of the bank should also write the Foundation stating that the bank did not receive the stipend payment. Such replacement payments usually require at least two months for processing. If the stipend is paid in the meantime, the Foundation should be notified immediately.

7. OTHER ALLOWANCES

a. Research Allowance. As soon as possible after the Foundation receives the Starting Certificate and the ACH Payment Form, you will receive via EFT a Research Allowance of \$11,000 for each of the first two years of the Fellowship as a lump sum. This lump sum is intended to aid in defraying costs of general research expenses, special equipment, computing, subscription fees, recovery costs for databases, travel, such as short-term visits to other institutions or laboratories or attendance at scientific meetings, or publication costs during the first year of the Fellowship tenure. It is expendable at your discretion. The research allowance may be augmented to defray costs related to Arctic or Antarctic fieldwork as described in Section 8.

If a third year of Fellowship has been awarded, an additional \$11,000 annual research allowance will be disbursed at the beginning of the third year via EFT directly to you, subject to the submission and approval of annual progress reports. This, too, is expendable at your discretion.

If a Fellowship is terminated early, the uncommitted portion of the research allowance must be returned to the National Science Foundation.

b. Institutional Allowance. On behalf of each Fellow, the National Science Foundation will provide the Fellowship Institution with an allowance of \$5,000 for each year of the Fellowship, for partial reimbursement for expenses incurred in support of the research (such as space, supplies, equipment, secretarial assistance, etc.) and fringe benefits exclusive of health insurance. Fellowship Institutions must request their payments using NSF Form 220 (3-03), Host Institutional Allowance Request. The payments to the Fellowship Institutions will be awarded as a lump sum for the first two years of Fellowship, and if a third year of Fellowship has been awarded, the \$5,000 Institutional Allowance must be requested at the beginning of the third year.

The Foundation is not responsible for any charges incurred by or on behalf of the Fellow by the institution. If a Fellowship is terminated early the uncommitted portion of the institution allowance must be returned to the National Science Foundation.

c. Health Insurance Allowance. An annual health insurance allowance will be paid either directly to you or to the host institution, as indicated in your proposal. The allowance is in the amount requested for health insurance in your proposed budget, but not to exceed \$3600 for Fellows with no dependents, \$6000 for a Fellow with one dependent, and \$9000 for a Fellow with two or more dependents. Health insurance is anticipated to include basic health insurance and dental insurance provided through either a group plan offered by the host organization or an individual plan secured by the Fellow. You should contact the Foundation in the event that the amount of your budgeted health insurance allowance needs to be adjusted during the Fellowship tenure.

8. FIELDWORK

a. Funding. Authorized Antarctic or Arctic fieldwork, included in a Fellowship award, will be supported in part by the U.S. Antarctic Program or the Arctic Research Support and Logistics program. Antarctic operational support will be provided directly by the logistics contractor, except for the costs of medical and dental screening, per diem and travel costs to and from Antarctica (other than airline tickets), and incidental field expenses. Arctic fieldwork that requires services of a logistics contractor will have operational support provided directly by the contractor, except for per diem and travel costs to and from the field and incidental field expenses. Fieldwork expenses not covered by a logistics contractor will be disbursed directly to the Fellow. These funds will be in addition to the standard research allowance as discussed in Section 7a, and are expendable at the Fellow's discretion.

b. Logistics Planning. If your fieldwork is part of your host scientist's program, you should work closely with your host scientist to ensure that the logistics plan for the program includes all your requirements. For stand-alone fieldwork programs in the Antarctic, you will need to put together a detailed logistics plan via the Operational Requirements Worksheets (ORW) described in the [Antarctic Research solicitation \(NSF 05-567\)](#). The final PDF should be emailed to the cognizant program officer at the email address on page 3. Contact OPP staff for questions on developing your logistics plans. Investigators new to fieldwork in the Antarctic are strongly encouraged to allow extra time for deployment preparations on the ice.

c. Field Assistants. Funds for hiring a field assistant will be disbursed directly to the Fellow, unless NSF can arrange for assistance in the field through a logistics support contractor. These disbursed funds may only be used to hire and pay the salary costs and, if needed, fringe benefits for an assistant in the field. The intent of the field assistance is to ensure the safety of the fieldwork. Experienced field assistants for Antarctic work may be available for hire through the U.S. Antarctic Program contractor's mountaineer corps.

d. Professional Conduct. NSF-funded researchers in the Arctic and the Antarctic are expected to conduct themselves in a highly professional manner and to comply with Arctic and Antarctic research policies and codes of conduct. Failure to meet this expectation is grounds for termination of the fellowship. Guidelines for U.S. Antarctic Program (USAP) participants can be found in [the USAP Participant Guide](#). Guidelines for researchers in the Arctic can be found in [the Principles for the Conduct of Research in the Arctic](#).

9. DATA MANAGEMENT

Fellows must comply with the Office of Polar Program's [Guidelines and Award Conditions for Scientific Data](#). OPP, in conformance with NSF policy, expects investigators to share with other researchers, at no more than incremental cost, and within a reasonable time, the data, derived data products, samples, physical collections, and other supported materials gathered or created in the course of a research project.

10. ANNUAL PROJECT REPORTS

Fellows are required to submit annual project reports at least 90 days before the anniversary date of the award. For example, if an award is made with a starting date of 1 June 2004, annual project reports are due no later than 1 March 2005, and 1 March 2006. Reports are expected to include comprehensive reviews by you and the sponsoring scientist(s) of the status and progress of your research and training plan and of your career and skill development. Continued funding for the second and third years of the Fellowship will be contingent on the approval of annual project reports, and it is your responsibility to ensure that annual reports are submitted in a timely fashion so that stipend payments are not interrupted. Annual reports are submitted electronically through FastLane at <http://www.fastlane.nsf.gov/>.

The Foundation would be pleased to receive an account of your progress at any time, especially if there are particularly significant developments during a given Fellowship year. This can be emailed to the email address listed on page 3.

11. CHANGE OF ADDRESS

A change in postal and/or electronic mail address should be reported promptly to the Foundation via electronic mail or in writing at the address on the first page of this booklet.

12. FOREIGN TRAVEL

All travel to be reimbursed from Federal funds must be by U.S. flag carriers if such service is available. Details are given below. No exceptions can be made to these regulations.

a. Use of U.S.-Flag Air Carriers.

1. The General Services Administration issued an amendment to the Federal Travel Regulations in the November 13, 1998 edition of the Federal Register (Vol. 63, No. 219). The amendment relates to the use of U.S. flag air carriers under the provisions of 49 U.S.C. 40118, which is commonly referred to as the Fly America Act.
2. Any air transportation to, from, between, or within a country other than the U.S. of persons or property, the expense of which will be assisted by NSF funding, must be performed by or under a code-sharing arrangement with a U.S.-flag air carrier if service provided by such a carrier is available (see Comp Gen. Decision B-240956, dated September 25, 1991). Tickets (or documentation for electronic tickets) must identify the U.S. flag air carrier's designator code and flight number.
3. For the purposes of this requirement, U.S.-flag air carrier service is considered available even though:
 - (a) comparable or a different kind of service can be provided at less cost by a foreign-flag air carrier;
 - (b) foreign-flag air carrier service is preferred by, or is more convenient for, NSF or traveler; or
 - (c) service by a foreign-flag air carrier can be paid for in excess foreign currency.
4. The following rules apply unless their application would result in the first or last leg of travel from or to the U.S. being performed by a foreign-flag air carrier:
 - (a) a U.S.-flag air carrier shall be used to destination or, in the absence of direct or through service, to the farthest interchange point on a usually traveled route.
 - (b) if a U.S.-flag air carrier does not serve an origin or interchange point, a foreign-flag air carrier shall be used only to the nearest interchange point on a usually traveled route to connect with a U.S. flag air carrier.
 - (c) a U.S.-flag air carrier involuntarily reroutes the traveler via a foreign-flag air carrier, the foreign-flag air carrier may be used notwithstanding the availability of alternative U.S.-flag air carrier service.

b. Use of Foreign-Flag Air Carriers.

1. Travel To and From the U.S.

Use of a foreign-flag air carrier is permissible if:

- (a) the airport abroad is the traveler's origin or destination airport, and use of U.S.-flag air carrier service would extend the time in a travel status by at least 24 hours more than travel by a foreign-flag air carrier; or
- (b) the airport abroad is an interchange point, and use of U.S.-flag air carrier service would increase the number of aircraft changes the traveler must make outside of the U.S. by 2 or more, would require the traveler to wait four hours or more to make connections at that point, or would extend the time in a travel status by at least six hours more than travel by a foreign-flag air carrier.

2. Travel Between Points Outside the U.S.

Use of a foreign-flag air carrier is permissible if:

- (a) travel by a foreign-flag air carrier would eliminate two or more aircraft changes en route;
- (b) travel by a U.S.-flag air carrier would require a connecting time of four hours or more than travel by a foreign-flag air carrier and travel is not part of the trip to or from the U.S.; or
- (c) the U.S. flag air carrier would require a connecting time of four hours or more at an overseas interchange point.

3. Short Distance Travel. For all short distance travel, regardless of origin and destination, use of a foreign-flag air carrier is permissible if the elapsed travel time on a scheduled flight from origin to destination airport by a foreign-flag air carrier is three hours or less and service by a U.S.-flag air carrier would double the travel time.

13. ADDITIONAL FELLOWSHIP PROVISIONS

a. Length of Tenure. These Postdoctoral Fellowships are awarded for a 24-month or 36-month continuous period, subject to satisfactory progress on the research and educational programs proposed. The tenure of a Fellowship may be interrupted only with the approval of the Foundation. In general, approval will not be given for support for portions of calendar-year intervals of durations less than three full-time months. **The total elapsed time of the Fellowship must not exceed 48 months.**

The Fellowship is subject to termination if the Fellow discontinues his/her research and educational activities for any reason prior to the end of Fellowship tenure. If a Fellow does not conform to the administrative requirements of the Fellowship Institution, the Foundation reserves the right to withhold all stipend payments, pending an acceptable explanation.

b. Extension of Tenure. Fellowships cannot be renewed. Extensions without additional cost to NSF are permitted in concurrence with the host organization for extenuating circumstances such as tenure interruptions due to medical leave or family leave.

c. Supplementary Activities. During the tenure of the Fellowship the Fellows are expected to devote full time to the program of scientific research and educational activities outlined in their proposal, for which the award was granted. A Fellow may not engage in activities for compensation (except for brief military obligations) or receive another Fellowship or similar award while pursuing Fellowship activities without **prior** approval of the Foundation. Such approval may be granted only under exceptional circumstances.

d. Federal and/or Armed Forces Employees. If, during any part of a Fellowship tenure a Fellow will be a member of the Armed Forces or on leave from a position in the Federal Service, a statement must be filed from a cognizant official of the Government organization involved specifying (1) the funds, if any, that will be made available to the Fellow during tenure and the purpose for which they will be provided, and (2) the funds, if any, that will be made available to the Fellowship Institution on the Fellow's behalf. The Foundation and the Fellow's organization must reach a mutually satisfactory agreement regarding the Fellow's support during tenure before any funds can be provided under the Fellowship.

e. Vacation and Leave. NSF Fellowships do not provide a formal leave period, as such, during the Fellowship tenure. Fellows are expected to work on a continuous, full-time basis for the tenure of the Fellowship. However, Fellows should follow the normal practices of their Fellowship Institutions with regard to observed holidays and vacation leave. For personal leave, Fellows should make arrangements with their sponsoring scientists in advance. For extended periods of leave, such as for medical or family leave, Fellows should consult with the NSF cognizant program officer.

f. Health Insurance. Health insurance is not available through NSF but you are strongly encouraged to secure health insurance using the Health Insurance Allowance (see section 7c of this document). You should discuss with your host institution whether or not you can participate in a group plan or if you need to secure an individual policy.

g. National Security. Fellows are obliged to report promptly to the Foundation, prior to disclosure to others, any discoveries that are made or data that are developed which could reasonably be considered as likely to affect the national security or the national defense. Doubtful cases should be referred to the Foundation prior to the disclosure to others of any information concerning them. Refer to the [Grant General Conditions](#), Article 28 for more information.

h. Intellectual Property Rights. The National Science Foundation claims no rights to any inventions or writings that might result from its fellowship or traineeship awards. However, Fellows should be aware that the NSF, another Federal agency, or some private party may acquire such rights through other support for particular research. Also, Fellows and trainees should note their obligation to include an Acknowledgment and Disclaimer in any publication.

Fellows should submit to the address given on page 1 one copy (paper or electronic) of any publications resulting from work while on tenure. An acknowledgment of NSF support and a disclaimer must appear in any publication of any material, whether copyrighted or not, based on or developed under this award, in the following terms:

"This material is based upon work supported by the National Science Foundation under grant number (enter fellowship award ID)."

All materials, except scientific articles or papers published in scientific journals, must also contain the following:

"Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation."

i. Income Taxes. No income tax will be withheld from any stipend. Provision therefore must be made by the Fellow for payment of any tax, domestic or foreign, when due. Final authority as to the taxability of awards rests with the Internal Revenue Service and the courts. Specific questions should be referred to the Internal Revenue Service.

Fellows are not in any sense employees of the National Science Foundation. Therefore, no funds will be deducted from the stipends; no Social Security taxes will be paid by the Foundation; no W-2 forms will be issued; and provision must be made by the Fellow for the filing of any necessary estimate of taxes due and for payment of all income taxes which may become due. A statement of funds received (including all allowances) will be issued by the Division of Financial Management of the Foundation upon written request of the Fellow.

The Foundation is unable to supply information concerning the income tax or other tax provisions of any foreign country. Inquiries should be directed to the authorities in the appropriate countries.

j. Future Employment. The award and acceptance of a Postdoctoral Fellowship does not obligate a Fellow, the National Science Foundation, or the United States Government with regard to future employment or future service of any kind.

k. Military Status. Brief interruption of a Fellowship for duly authorized military service or training will be permitted with prior Foundation approval. Requests for such interruptions of tenure should be directed to the Foundation in writing as soon as plans are final. Interruptions of less than 4 days need no approval.

In the case of a longer interruption resulting from active military service or from certain activities in lieu of service with the regular U.S. Armed Forces, provision can be made for reservations of a Fellowship (or the balance of it), and reinstatement of the unused portion at a later date. In such cases Fellows should notify the Foundation immediately in writing of their plans, and request further instructions. This may not be subject to the 48-month limit.

l. Veterans' Benefits. As a result of the enactment of P.L. 91-219, effective March 26, 1970, educational benefits payments from the Veterans Administration may now be received concurrently with and supplementary to Fellowship payments from the National Science Foundation.

m. Special Considerations. A number of situations frequently encountered in the conduct of research require special information and supporting documentation before starting tenure. Among these are the following, some mandated by Federal law.

1. research which has an actual and/or potential impact on the environment;
2. research at a registered historic or cultural property;
3. research involving the use of in vitro generated recombinant DNA molecules;
4. research involving the use of human subjects, scientific diving, hazardous and/or radioactive materials, vertebrate animals, or endangered species.

Fellows must provide information on the status of any special permissions, clearances or provision related to the above items before beginning tenure. Assessment of environmental impact will be required when appropriate. Specific guidance on the need for such additional documentation may be obtained from the Fellowship Institution's Research Administration Office or the [NSF Grant Policy Manual](#).

14. TERMINATION OF FELLOWSHIP

A Termination Certificate, NSF Form 453 (8-95), will be included in the materials sent with the award letter. This certificate must be signed by an appropriate official at the Fellowship Institution, and should show the date you actually completed Fellowship activities; the Fellowship will be considered to have terminated as of that date. When you affiliate with more than one institution, a Termination Certificate is required from each institution. Submission of this certificate is necessary to comply with governmental accounting procedures. In the event the certificate is not submitted you may be requested to return to the Foundation all Fellowship funds which were received during Fellowship tenure. Should this form be misplaced during the tenure of the Fellowship, you are responsible for requesting a new form in ample time to have it signed prior to departure from the Fellowship Institution, and for making arrangements for its submission to the Foundation.

15. ASSOCIATED FORMS AND DOCUMENTS

The following documents will be mailed with the award letter, and are referred to in this document. These forms should be mailed to NSF at the address given at the beginning of this document, at the appropriate time in the tenure of the Fellowship, as described above.

Certification of PhD receipt
Fellowship Starting Certificate, NSF Form 349 (1-02)
ACH Vendor Enrollment, Form SF-3881
Request for Stipend Advance, NSF Form 929 (12-00)
Fellowship Payment Schedule, NSF Form 1367 (3-98)
Host Institutional Allowance Request, NSF Form 220 (3-03)

Fellowship Action Form, NSF Form 383 (2-97)
Fellowship Termination Certificate, NSF Form 453 (8-95)