

DDS&T-3339-82

26 JUL 1982

MEMORANDUM FOR: Director of Development and Engineering  
 Director of Research and Development  
 Director of SIGINT Operations  
 Director of Technical Service  
 Director, Foreign Broadcast Information Service  
 Director, National Photographic Interpretation Center

FROM: R. E. Hineman  
 Deputy Director for Science and Technology

SUBJECT: Senior Scientist and Engineer Program

1. Attached is a copy of the Memorandum of Understanding concerning the establishment and operation of a Senior Scientist and Engineering Program (SS&EP) for the DDS&T. As the first step, each Office, if they have qualified candidates, is requested to nominate two officers, one against the GS-15 and the other against the SIS-level position for consideration for the SS&EP. Each officer recommended should meet the criteria established for the program. In addition, Offices should also identify positions to accommodate the nominees. Nominations for consideration should be forwarded to Chief, Administrative Staff, DDS&T, by 12 August. The Career Service Board, serving as the SS&EP review group, will make final recommendations at the 20 August meeting. Although not needed at this time, position descriptions will be required for submission to PMCD/OP at a later date.

2. Please note in paragraph 3g of the attachment that existing positions already classified at the GS-15 and SIS-1/2 levels are not included in the program.

[Redacted Signature]

R. E. Hineman

25X1

Attachment: a/s

DERIVATIVE CL BY [Redacted] 25X1  
 DECLASS REVIEW ON July 02  
 DERIVED FROM A9C5.2

SECRET

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding establishes the Senior Scientist and Engineer Program for the Directorate of Science and Technology (DDS&T) and the conditions under which senior scientists and engineers will be selected and assigned. The purpose of the program is to provide a number of non-managerial advancement opportunities for scientists and engineers who have demonstrated exceptional technical expertise and creativity in advancing the technological capabilities of the Intelligence Community, and whose contributions merit advancement without entry into the managerial ranks. (U)

1. The number of senior scientists/engineers in the program will not exceed 32, with an intended ratio of 20 at the GS-15 level and 12 at the SIS-1/2 level; a change in that ratio within the total of 32 will be permitted if S&T's SIS ceiling restricts the achievement of SIS status for 12 senior scientists/engineers. Selection will be made conservatively, and a full complement is not anticipated for 1-2 years. (S)

2. Office directors will nominate candidates to DD/S&T based on criteria agreed upon by DD/S&T and D/OP (see tabs A & B). Final selections will be made by DD/S&T, who will advise D/OP of the appointments. (U)

3. Administrative arrangements will be as follows:

a. A Senior Scientific/Engineering Officer Group will be established to review and nominate candidates and positions for this program. Members of this group will be representative of the various S&T offices. (U)

b. When a scientist/engineer position has been selected for the program, the sponsoring office will transfer a position of appropriate grade level (GS-14 or above) to a Senior Scientific/Engineering Officer Group to be located in the Office of the Director of that office. OP/PMCD and S&T will jointly provide points when it is not possible to identify existing GS-15 positions for the program. In view of current constraints, DD/S&T may request additional SIS ceiling from the DCI when it is required. (U)

c. Scientist/engineer and accompanying position will retain his/her original career service designation, and the incumbent will remain under the supervision and career development cognizance of the sponsoring office director. (U)

d. The duration of an assignment as a senior scientist/engineer will be indefinite, based on S&T priorities and the continued availability of each incumbent. (U)

SECRET

e. When a senior scientist/engineer position is vacated, the ceiling will revert to the sponsoring office for appropriate use, unless a continuing S&T need is identified and a fully-qualified candidate from the same career service is selected to fill the vacated position. The grade level of the position is to be determined by PMCD using traditional position classification methodology. (U)

f. PMCD will conduct periodic surveys of the senior scientist/engineer positions for validation. Discrepancies will be brought to the attention of S&T management, and if they can not be resolved informally, will be subject to the existing classification appeals system. (U)

g. Existing GS-15 and SIS-1/2 senior scientist/engineer positions, having been classified on their own merits, are not included in the total 32 positions covered by this Memorandum of Understanding. They are subject to normal review and evaluation during office surveys. New GS-15 and SIS-1/2 positions identified in normal surveys will be brought to the attention of S&T management. (S)

[Redacted Signature]

Director of Personnel

18 MAY 1982

Date

25X1

[Redacted Signature]

A Deputy Director for Science and Technology

26 MAY 1982

Date

25X1

Senior Scientific/Engineering Officer, GS-15

JOB SUMMARY:

The incumbent is a recognized authority throughout the Intelligence Community, serves as the scientific or engineering officer directly responsible for conceptualization, hands-on development of prototype production, and follow on production or system analysis of complex state-of-the-art technologies to be used exclusively by the Intelligence Community in order to obtain data/information of significant interest to policymakers. The position is organizationally treated at the division or higher-level, however, work effort crosses directorate lines requiring incumbents to use diverse scientific skills while interfacing with senior officials in both the private and public sector to produce a final product. These completed products may have a significant impact on the collection, exploitation or analysis of data directly effecting national policy. (S)

DUTIES:

Performs or directs independent in-depth research, systems evaluation or analyses of highly technical state-of-the-art technologies for use in developing new intelligence collection methods in support of the Intelligence Community. This includes representing the specific office and the S&T Directorate with direct and cross-directorate interfacing with senior Agency officials, officials of other federal organizations, members of the academic community, and a variety of external contractors to establish specific program needs, requirements, anticipated results, projected costs, and anticipated benefits to the Intelligence Community. (S)

EVALUATION FACTORS

Factor 1. Knowledge Required by the Position

Authoritative knowledge of a hard science or engineering specialization with extensive knowledge of several other scientific and engineering disciplines. A comprehensive understanding of the area of specialization sufficient to independently perform research, analyze or conceptualize an existing or proposed technical activity that will improve/alter present technologies or advance the state-of-the-art for a particular product using all available and relevant sources for development of technologies to collect data of intense interest to senior government officials. Knowledges required would generally be greater than the substantive knowledge required of an S&T Branch Chief, and are validated by outstanding achievements of the following kind in field of science: (U)

a) Minimum of twelve years experience in a substantive field of scientific or engineering research and development, including at least two years of clearly demonstrated exceptional performance at the GS-14 level or equivalent outside the federal sector. (U)

b) Mastery of a specific scientific or engineering field of technology sufficient to propose and/or develop new theories, concepts, procedures, methodologies, etc., as evidenced by authorship of publications, as well as being a recognized authority in an area of specialization by academia or professional organizations. (U)

c) A post-graduate degree in a related scientific or engineering field accompanied by academic research sustaining the expertise and/or having completed two S&T tours of duty (not less than four years combined) in separate offices at branch chief level or non-supervisory equivalent or comparable work time and experience with another federal Agency or private sector organization in an acceptable field. (U)

- Demonstrated ability to assume total and independent responsibility for conceptualizing, drafting, initiating, discussing, defending and implementing highly technical state-of-the-art theories, plans and programs to successful completion. (U)

- Demonstrated written and oral presentation skills critical to the presentation and defense of highly technical proposals or evaluations. (U)

## Factor 2. Supervisory Controls

The incumbent is required to report to an S&T division chief or higher-level organizational official. Assignments are made in terms of broad program areas requiring the incumbent to act with total technical independence, and the widest latitude in fulfilling assignment objectives. Reviews are for overall conformance to collection policies and budgetary constraints. (U)

## Factor 3. Guidelines

The incumbent is provided broad and non-specific parameters to address a particular technical issue as he/she determines. Standard or established guidelines, approaches or procedures are not applicable, thus requiring the incumbent to ascertain the most appropriate methods to be employed. Sound judgment, ingenuity and creativity in assessing various approaches for each project are a must. (U)

The work requires a critical and non-traditional technical approach to a variety of intelligence collection problems of an in-depth and complex technical nature that may require changes to present state-of-the-art technologies. Decisions require extensive support data and critical evaluations of problem areas, approaches and methodologies, to successfully fulfill requirements. The incumbent provides a high degree of imagination, creativity and conceptual ability to extend present scientific methods and applications for new technological development and application. (S)

Factor 5. Scope and Effect

The nature of work being performed involves the independent planning, conceptualizing, developing and producing of new technologies or hardware/software to meet the needs and requirements of the Intelligence Community. The completed product has a direct effect on the intelligence gathering and/or exploitation capabilities of the Agency. (S)

Factor 6. Personal Contacts

There are regular internal contacts across directorate lines, with officials in other agencies of the Intelligence or Defense Community, with senior management personnel level in contractor organizations with members of Congress or their staffs and members of the scientific or academic community as required. (C)

Factor 7. Purpose of Contacts

The incumbent has direct contact/interface with the Intelligence Community and/or members of Congress or their staffs, to present and defend highly technical state-of-the-art programs and projects of national significance that have interagency impact. The incumbent is sought out by colleagues within the community for advice, guidance, and technical review in order to justify and defend specific estimates of program capabilities of the highest interest to policymakers. Incumbent may be required to assess the state-of-art activity in commercial and/or government laboratories. (S)

Factor 8. Physical Demands

Work is sedentary requiring little physical exertion. (U)

Factor 9. Work Environment

The work is generally performed in an office or laboratory environment requiring minimal risks and discomforts. Occasional domestic travel is required. (U)

Senior Scientific/Engineering Non-Managerial Officer

Senior Scientific/Engineering Officer, SIS-1/2

JOB SUMMARY:

The incumbent serves as the technical advisor and/or coordinator for product/project conceptualization, establishment and production of highly complex state-of-the-art technologies at the office level in DDS&T, under the administrative direction of the office director. He/she may at times be detailed to other S&T offices or the directorate level or another intelligence staff at a senior level, to accomplish a specific scientific objective. The incumbent is a recognized authority throughout the Intelligence Community in one or more technical fields and is responsible for the presentation/defense of newly conceived technical concepts and hypotheses, proto-type products and systems analyses on behalf of the office director for critical technical requirements of major interest to policymakers. The highly specialized work effort usually has inter-directorate and often interagency implications and requires a multi-disciplinary approach and expertise to arrive at a conclusion that will significantly impact on the intelligence collection or analysis capabilities of the Agency and the Intelligence Community. The scope of work being performed requires the incumbent to perform independent analysis and evaluation of programs while making projections as to resource needs, program/project costs, time factors, impact and probability of success while coordinating the work of other scientific or engineering officers to meet established goals. (S)

DUTIES:

Provides technical guidance and direction to project/program efforts within the S&T Directorate while coordinating independent analysis, concepts, and evaluations with other scientists and engineers in the development of technologies of a multi-disciplinary and technically complex nature which will fill a critical requirement deficiency in the collection or analytical capabilities of the Agency and Intelligence Community. In addition to independently performing in-depth research and systems analysis, he/she provides technical guidance to other scientists, across office and directorate lines, working on similar/related projects. (S)

Authoritative expert and spokesperson to senior S&T, CIA, Intelligence Community officials and external contractors for a specific project/projects of a highly technical nature. (S)

Represents the Agency in interagency forums, with full authority to commit or designate highly technical resources to a course of action. (U)

SECRET

Factor 1. Knowledge Required by the Position

The incumbent has authoritative knowledge of a science or engineering specialty with extensive multi-disciplinary knowledge of a broad range of scientific and engineering disciplines. A diverse yet complete understanding of an area of specialization sufficient to independently conduct in-depth research, analyze or conceptualize existing or proposed technical activity in advancing the state-of-the-art in technologies applicable to collecting or analyzing intelligence data of major interest to policymakers. (S)

Demonstrated leadership abilities sufficient to plan, direct, review, coordinate and consolidate the work efforts and conclusions of other scientists or engineers. Knowledges required would generally be greater selective areas than the substantive knowledge required of an S&T Division Chief, and are validated by outstanding achievement of the following kind in the field of science. (U)

a) Minimum of fourteen years experience in a substantive field of science or engineering research and development, including two years of clearly demonstrated exceptional performance at the GS-15 level or equivalent outside the federal sector. (U)

b) Mastery of a specific scientific or engineering field of technology sufficient to propose, develop and review new theories, concepts, procedures, methodologies, etc., as evidenced by authorship of publications, as well as being a recognized authority in the area of specialization by academia and professional organizations. (U)

c) A post graduate degree in a related scientific or engineering field accompanied by academic research sustaining the expertise and/or having completed two S&T tours of duty (not less than four years combined) in separate offices at division chief level or non-supervisory equivalent or comparable work time and experience with another federal Agency or private sector organization in a required field. (U)

- Demonstrated written and oral presentation skills critical to presentation and defense of highly technical proposals or evaluations. (U)

Factor 2. Supervisory Controls

The incumbent is required to work in a DDS&T office or higher-level organization. Assignments are made in terms of broad program areas requiring the incumbent to act with total technical independence and a wide latitude in fulfilling assignment/program objectives. Reviews are to assure that an intelligence collection or analysis deficiency is satisfied and that overall Agency objectives are met. (U)



As the recognized authority in the field, the incumbent is provided general freedom to address numerous technical issues/requirements as he/she determines. The incumbent has authority to task resources across organizational lines and to develop methodologies and guidelines and set goals and approaches to develop specific technical projects/programs while documenting and evaluating the findings. Sound judgment, leadership, creativity and ingenuity are essential to properly assessing project objectives and maximizing the probability of success. (U)

#### Factor 4. Complexity

The work involves a critical intensive review and development of solutions to a variety of highly technical collection problems and requirements that may require a joint effort to alter or advance present state-of-the-art technologies. Evaluations and proposals require extensive support data and critical evaluations of problem areas, approaches and methodologies to ascertain feasible solutions. The incumbent can independently draw upon resources across directorate offices as required to meet program needs. He/she provides imagination, suggestions, creativity and coordination of scientific methods and theories for program development and production. (S)

#### Factor 5. Scope and Effect

The nature of work being performed involves the independent planning, conceptualization, development, production and coordination of new technologies or hardware/software to meet the needs and requirements of the Intelligence Community. The completed product has direct effect on the intelligence gathering capability of the Agency and Intelligence Community and will ultimately provide a broader base of intelligence information to shape U.S. foreign policy. (S)

#### Factor 6. Personal Contacts

There are regular internal contacts across directorate lines, with senior officials in other agencies of the Intelligence or Defense Community and with senior management and technical levels in contractor organizations. (C)

#### Factor 7. Purpose of Contacts

The incumbent has direct contact with the Intelligence Community and/or members of Congress or their staffs, to present and defend highly technical state-of-the-art programs and projects of national significance that have interagency impact. The incumbent is sought out by colleagues within the community for advice, guidance, and technical review in order to justify and defend specific estimates of program capabilities of the highest interest to policymakers. (U)

Work is sedentary requiring little physical exertion. (U)

Factor 9. Work Environment

The work is generally performed in an office or laboratory requiring minimal risks and discomforts. Occasional domestic travel is required. (U)

UM

FROM: DDS&T 148-82      DATE RECEIVED: 17 Dec. 82      DATE OF MATERIAL: 16 Dec. 82      CLASSIFICATION: Secret      ORIGINATOR AND CONTROL NO.: DDS&T 4101N - 82

COPY DISPOSITION IN EXECUTIVE REGISTRY

NO COPIES RETAINED       CHRONO FILE       EXECUTIVE SUBJECT FILE  
 W/O ATTACHMENT       WITH ATTACHMENT       W/O ATTACHMENT       WITH ATTACHMENT

SUBJECT: Memo: Sub: ~~Senior~~ Senior Scientist and Engineer Program

INFO	ACTION	COMMENT	CONCURRENCE	PREPARE REPLY	RECOMMENDATION	RETURN	FILE
ROUTING	DATE	INITIALS	REMARKS				
DD/FBIS	all		This is circulated for your information. The Senior Scientist and Engineer Program is designed to provide non-managerial advancement opportunities for scientists and engineers who have demonstrated exceptional technical expertise and creativity in advancing the <del>technical</del> technological capabilities of the Intelligence Community. It does not involve managerial positions. Any nominees would have to be proposed through the D/FBIS to the DD/S&T. jdc				
2 DD/FBIS	20 Dec	J					
3 C/OPS	21 Dec	J					
4 <del>C/ED</del>	22 Dec	J					
5 SA/CD	23 Dec	J					
6 C/AS		J					
7 P/PTB	27 Dec	B					
8 EX. REGISTRY							

PERSONNEL (Suggestion & Achievement Awards)

RETAIN IN EXECUTIVE REGISTRY

## ROUTING AND RECORD SHEET

**SUBJECT:** (Optional)

Senior Scientist and Engineer Program

**FROM:**

DDS&T

**EXTENSION**

**NO.**

DDS&T-4101-82

**DATE**

16 December 1982

25X1

**TO:** (Officer designation, room number, and building)

**DATE**

RECEIVED

FORWARDED

**OFFICER'S INITIALS**

**COMMENTS** (Number each comment to show from whom to whom. Draw a line across column after each comment.)

1.	Director, FBIS				
2.	1013 Key				
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

