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INTELLIGENCE COMMUNITY INFORMATION REQUEST

SECTION 1 --TRAINING AND EDUCATION

A. NATIONAL CRYPTOLOGIC SCHOOL ORGANIZATION

THE COMMANDANT OF THE NATIONAL CRYPTOLOGIC SCHOOL IS
RESPONSIBLE FOR TRAINING AND RETRAINING THE PERMANENT,
CIVILIAN PERSONNEL WITHIN THE NATIONAL SECURITY
AGENCY/CENTRAL SECURITY SERVICE. FUNCTIONALLY, THE NCS IS
AN ORGANIZATION HEADED BY THE ASSISTANT DIRECTOR FOR
TRAINING WHO REPORTS TO THE DIRECTOR, NSA/CSS. THE
ORGANIZATIONAL DESIGNATOR IS "E." THE ASSISTANT DIRECTOR
FOR TRAINING WHO IS ALSO THE COMMANDANT OF THE NATIONAL
CRYPTOLOGIC SCHOOL HAS ADDITIONAL RESPONSIBILITIES
WITHIN THE CRYPTOLOGIC COMMUNITY AT LARGE. THESE ARE
DESCRIBED IN ANNEX A (TRAINING ORGANIZATION ((E))
ORGANIZATIONAL MANUAL). THIS PAPER IS LIMITED IN SCOPE TO
CNCS/ADT (HEREAFTER REFERRED TO AS ADT) RESPONSIBILTIES,
POLICIES AND PRACTICES WHICH APPLY TO THE NSA CIVILIAN
WORKFORCE.

B. POLICY

NSA/CSS TRAINING PROGRAMS ARE CONDUCTED IN ACCORDANCE WITH THE AUTHORITIES LISTED IN ANNEX B. THE NSA/CSS PRESENTS EDUCATIONAL AND TRAINING PROGRAMS TO PREPARE THE WORKFORCE TO MEET MISSION NEEDS AND TO PROVIDE OPPORTUNITIES FOR THE PROFESSIONAL DEVELOPMENT OF EMPLOYEES. WHEN POSSIBLE THESE PROGRAMS ARE CONDUCTED THROUGH INTERNAL NSA/CSS FACILITIES. THE FACILITIES OF OTHER GOVERNMENT ACTIVITIES ARE USED TO SATISFY THOSE TRAINING REQUIREMENTS WHICH CANNOT BE MET THROUGH INTERNAL PROGRAMS. NON-GOVERNMENT TRAINING FACILITIES ARE USED ONLY TO MEET THOSE REQUIREMENTS NOT AVAILABLE WITHIN THE GOVERNMENT. THE NSA/CSS SELECTS EMPLOYEES FOR TRAINING REGARDLESS OF RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN, HANDICAP, OR AGE. THOSE EMPLOYEES WHO WILL BENEFIT MOST FROM THE TRAINING AND WHO CAN BE EXPECTED TO MAKE THE GREATEST CONTRIBUTION TO THE GOVERNMENT IN THE FUTURE ARE CHOSEN. TRAINING MUST BE CLEARLY RELATED TO THE EMPLOYEE'S OFFICIAL DUTIES OR TO HIS OR HER SPECIFIC CAREEER DEVELOPMENT PROGRAM. THE AGENCY DOES NOT SPONSOR NON-JOB-RELATED TRAINING TO PROVIDE CREDITS TOWARD PROFESSIONALIZATION OR SOLELY FOR THE PURPOSE OF OBTAINING A DEGREE. ALL SUPERVISORS, MANAGERS, AND EXECUTIVES FROM THE LOWEST TO THE HIGHEST LEVELS MUST UNDERGO PLANNED MANAGEMENT DEVELOPMENT TRAINING.

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C. PROGRAMS

THE ADT DETERMINES THE LEVEL AND SCOPE OF INSTRUCTION
NECESSARY TO MEET ALL NSA/CSS TRAINING NEEDS AND
ESTABLISHES POLICY FOR SELECTION OF NSA/CSS PERSONNEL TO
ATTEND TRAINING. PREREQUISITES AND STUDENT QUALIFICATIONS
ARE IDENTIFIED FOR EACH COURSE WITH MISSION AND CAREER
DEVELOPMENT OBJECTIVES IDENTIFIED. SINCE MANY CRYPTOLOGIC
RELATED SKILLS CANNOT BE FOUND OUTSIDE OF THE NSA/CSS,
TRAINING IS ESSENTIAL TO ACCOMPLISHMENT OF THE AGENCY'S
MISSION. ONE OF THE MISSIONS OF THE NSA/CSS--TO PRODUCE
SIGNALS INTELLIGENCE--INFLUENCES THE STRUCTURE AND
OFFERINGS OF THE NATIONAL CRYPTOLOGIC SCHOOL. (SEE ANNEX
C, CTS COURSE CATALOG.) WITHOUT THE INTERNAL TRAINING
OFFERINGS OF THE NCS IN THE PURE CRYPTOLOGIC SKILLS OF
CRYPTANALYSIS, TRAFFIC ANALYSIS, CRYPTOMATHEMATICS,
INTELLIGENCE REPORTING AND COMPUTER SCIENCE APPLICATIONS,
NSA COULD NOT ACCOMPLISH ITS SIGINT MISSION. THESE SKILLS
ARE GENERALLY FOUND IN THE OPERATIONS ORGANIZATION.
HOWEVER, THE NCS ATTEMPTS TO SATISFY THE NEEDS OF ALL KEY
COMPONENTS. THESE ARE EQUALLY ESSENTIAL IN PROVIDING
SIGNALS INTELLIGENCE. WHEN SIMILAR TRAINING CAN BE FOUND
EXTERNAL TO NSA, ONLY THOSE COURSES WHICH RESULT IN
EFFECIENCY AND EFFECTIVENESS AND A SAVING OF TIME, MONEY,
OR TRAVEL (DISTANCE TO ACTIVITY) ARE TAUGHT BY THE NCS.
THE DECISION TO DEVELOP AN INTERNAL PRESENTATION OR TO GO
EXTERNAL IS THE RESPONSIBILITY OF EACH NCS DEPARTMENT HEAD.

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THE NCS CONDUCTS FORMAL TRAINING COURSES IN THE FOLLOWING AREAS:

1.   LANGUAGES AND LINGUISTICS. --COURSES IN GENERAL FIELDS OF LANGUAGES, LINGUISTICS, AND TARGET STUDIES.

2.   INTELLIGENCE AND ANALYSIS. COURSES IN INTELLIGENCE, RESEARCH, REPORTING, CRYPTANALYSIS, CRYPTOMATHEMATICS, AND TRAFFIC ANALYSIS.

3.   SCIENCE AND TECHNOLOGY. -- COURSES IN ENGINEERING, COMPUTER SCIENCES, COMPUTER PROGRAMMING, SIGNALS COLLECTION, SIGNALS ANALYSIS, TELECOMMUNICATIONS, AND THE OPERATION AND MAINTENANCE OF RELATED EQUIPMENT.

4.   CRYPTOLOGY.--COURSES IN CRYPTOLOGY, COMMUNICATIONS SECURITY, CRYPTOLOGY ORIENTATION PROGRAMS FOR NEW COLLEGE HIRES, PRE-PROFESSIONALS, AND SUPERVISORY PERSONNEL.

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5.   COMMUNICATIONS SKILLS.--COURSES IN WRITING, READING, LISTENING, AND ORAL COMMUNICATIONS.

6.   MANAGEMENT.--COURSES AT SUPERVISOR, MANAGER, AND EXECUTIVE LEVELS, AND SPECIALIZED COURSES IN MANAGEMENT APPLICATIONS, MANAGEMENT SYSTEMS AND TECHNIQUES, RESOURCES AND ACQUISITION MANAGEMENT, AND ORGANIZATIONAL DEVELOPMENT.

7.   EDUCATION.--COURSES IN THE FIELD OF INSTRUCTION.

8.   GENERAL SKILLS.--OFFICE SKILLS, ADMINISTRATION, CIVIL DEFENSE, AND SAFETY.

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THE ADT ALSO SPONSORS NSA/CSS PERSONNEL IN EXTERNAL

TRAINING PROGRAMS: (SEE ANNEX D FOR DETAILS.)

1. NSA/CSS FELLOWSHIPS AND SCHOLARSHIPS.

2. AFTER-HOURS COLLEGE PROGRAM.

3. ADVANCED STUDIES PROGRAM.

4. IN-HOUSE COLLEGE PROGRAM.

5. INSTRUCTIONAL TELEVISION COLLEGE PROGRAM.

6. TECHNICAL AND PROFESSIONAL SHORT COURSES AND

PROGRAMS.

7. SPECIAL LANGUAGE/AREA PROGRAMS.

8. GOVERNMENTAL DEGREE PROGRAMS.

9. CONFERENCES, CONVENTIONS, SYMPOSIA, AND

MEETINGS.

10. JOINT AND SENIOR SERVICE COLLEGES.

11. SENIOR EXECUTIVE MANAGEMENT PROGRAMS AND

NATIONAL FELLOWSHIPS.

12. MANAGEMENT SHORT COURSES AND PROGRAMS.

13. DOD MANAGEMENT EDUCATION COURSES.

14. UNDERGRADUATE TRAINING PROGRAM

D. PROCEDURES

1. INTERNAL NCS TRAINING:

ANNUALLY, THE ADT REQUESTS ENSUING FISCAL YEAR STUDENT REQUIREMENTS AND THOSE FOR THE NEXT FOUR YEARS INCLUDING KNOWN NEW TRAINING REQUIREMENTS. KEY COMPONENT CHIEFS COLLECT, REVIEW, PRIORITIZE AND APPROVE ALL TRAINING REQUIREMENTS LEVIED ON THE NCS. RECENTLY KEY COMPONENTS HAVE INSTITUTED TRAINING AUTHORITIES WHO HAVE RESPONSIBILITY FOR ENSURING THAT THEIR ORGANIZATIONS TRAINING NEEDS ARE CORRECTLY IDENTIFIED AND ADEQUATELY ADDRESSED. MANAGERS AND SUPERVISORS AT ALL LEVELS CONTINUOUSLY IDENTIFY THE TRAINING NEEDS OF EMPLOYEES TAKING INTO ACCOUNT PRESENT AND ANTICIPATED NEEDS FOR ADMINISTRATIVE, TECHNICAL, PROFESSIONAL, AND MANAGERIAL SKILLS TO ENSURE AN EFFECTIVE WORK FORCE. THE ADT BUDGETS FOR RESOURCES TO SUPPORT TRAINING NEEDS THROUGH THE CONSOLIDATED CRYPTOLOGIC PROGRAM. THE NSA/CSS PROGRAM BUDGET REVIEW GROUP (PBRG) REVIEWS PROGRAM REQUIREMENTS ACROSS THE AGENCY ADDRESSING OPERATIONAL, SUPPORT AND TRAINING NEEDS, AND LISTS THEM IN A PRIORITY ORDER. THE DIR, NSA/CSS REVIEWS, APPROVES AND FORWARDS THE FINAL SUBMISSION TO CONGRESS.

UPON APPROVAL OF THE BUDGET, ADT ALLOCATES NCS RESOURCES
TO MEET THE HIGHEST PRIORITY OF JOB-RELATED TRAINING
REQUIREMENTS AND SPECIFICALLY THOSE WHICH ARE FUNDAMENTAL
TO CRYPTOLOGY. (SEE ANNEX E FOR PRIORITY CODES.) ADT
NOTIFIES CHIEFS OF KEY COMPONENTS WHICH NEEDS WILL OR WILL
NOT BE MET DURING THE COMING YEAR. CHIEFS OF KEY
COMPONENTS THEN IDENTIFY TO ADT THEIR PROPOSED TRADE-OFFS
TO MEET TRAINING SHORTFALLS. THESE TRADE-OFFS MAY BE
EXPERTS, OTHER RESOURCES AND/OR FUNDS. CLASS SESSIONS ARE
SCHEDULED ON A FISCAL YEAR BASIS AND QUOTAS ARE ALLOCATED
TO KEY COMPONENTS. KEY COMPONENTS ASSIGN STUDENTS AGAINST
THEIR QUOTAS. IN FY-87, ABOUT 40 PERCENT OF EXPRESSED
REQUIREMENTS WERE NOT MET DUE TO LACK OF RESOURCES.

2. EXTERNAL TRAINING:

THE ADT PROGRAMS RESOURCES TO COVER TUITION, TRAVEL, AND OTHER RELATED EXPENSES FOR EXTERNAL TRAINING LISTED IN SECTION C THROUGH THE PROCESS DESCRIBED ABOVE. THE ADT ALSO RECOMMENDS TO THE DIRECTOR FOR SELECTION, PERSONNEL FOR PARTICIPATION IN MOST EXTERNAL TRAINING PROGRAMS. (THE DIRECTOR OF NSA MAY DELEGATE SELECTION AND APPROVAL AUTHORITY FOR CERTAIN SENIOR TRAINING AND DEVELOPMENT ACTIVITIES TO OTHER APPROPRIATE AUTHORITIES. SEE ANNEX F.) EXTERNAL TRAINING ACTIVITIES FOR WHICH THERE IS LIMITED ATTENDANCE ARE ANNOUNCED AGENCY WIDE AND QUALIFIED PERSONNEL COMPETE FOR SELECTION. AN EXAMPLE IS THE NSA SCHOLARSHIP AND FELLOWSHIP PROGRAM WHICH IS INTENDED TO DEVELOP CAREER EMPLOYEES THROUGH TWO SEMESTERS OF JOB-RELATED, FULL-TIME COLLEGE TRAINING. (SEE ANNEX D FOR FELLOWSHIP/SCHOLARSHIP AND OTHER PROGRAM DESCRIPTIONS.) FUNDS ARE ALSO PROGRAMMED FOR "COURSES OF OPPORTUNITY", E.G., A 5-DAY PRESENTATION ON HOLOGRAPHY OFFERED BY GEORGE WASHINGTON UNIVERSITY BY A VISITING EXPERT. ABOUT 70% OF THE FUNDS REQUIRED TO SUPPORT EXTERNAL TRAINING IS ALLOCATED DIRECTLY TO THE NCS. AN ADDITIONAL 20% IS TRANSFERRED FROM KEY COMPONENTS TO THE SCHOOL FROM THEIR OPERATING BUDGETS TO UNDERWRITE COSTS OF NON-COMPETITIVE MISSION REQUIRED TRAINING. THE FUNDS AVAILABLE FOR EXTERNAL TRAINING ARE NOT CONSIDERED ADQUATE TO MEET THE NEEDS OF EACH ORGANIZATION.
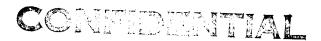
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ADDITIONALLY, THE NCS ESTABLISHES AND CONDUCTS TRAINING THAT IS REQUIRED BY LAW OR REGULATION (SEE ANNEX G FOR EXAMPLES) AND THAT WHICH IS IDENTIFIED BY SENIOR AGENCY MANAGEMENT. AGAIN, THESE ACTIVITIES COMPETE FOR PROGRAMMED RESOURCES AND ARE GIVEN THE HIGHEST PRIORITY.

E. INTERNAL TRAINING CONDUCTED OUTSIDE OF THE NCS

WHILE THE NCS IS CHARGED WITH RESPONSIBILITY FOR FORMAL TRAINING, OTHER ORGANIZATIONS WITHIN THE AGENCY CONDUCT INTERNAL TRAINING TO MEET THEIR UNIQUE NEEDS.

THE INFORMATION SECURITY ORGANIZATION (DDI) HAS AN INFOSEC AWARENESS AND EDUCATION DIVISION WHICH CONDUCTS COURSES IN COMMUNICATIONS SECURITY, COMPUTER SECURITY, AND OPERATIONAL SECURITY. THE AGREEMENT FOR THIS ARRANGEMENT BETWEEN DDI AND ADT DATES TO THE EARLY 1970'S BUT IS NOW UNDER REVIEW TO DETERMINE WHICH COURSES CAN BE TAUGHT BY THE NCS AND WHICH WILL REMAIN WITH DDI. PRESENTLY THE NCS COLLECTS REQUIREMENTS FOR DDI COURSES WHICH APPEAR IN THE NCS CATALOG. REQUIREMENTS ARE COLLECTED ACCORDING TO THE PROCEDURES DESCRIBED ABOVE. THESE ARE THEN PASSED TO DDI WHO SCHEDULES THE COURSES. RECORDS ARE MAINTAINED BY THE NCS.

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DDI CIVILIAN PERSONNEL ATTEND COURSES TAUGHT BY THE NCS AND ARE SPONSORED BY THE NCS IN EXTERNAL TRAINING ACTIVITIES.

IN 1985, THE NCS ATTEMPTED TO DETERMINE THE EXTENT TO WHICH INTERNAL TRAINING WAS CONDUCTED OUTSIDE OF THE NCS. IN ADDITION TO THE DDI INTERNAL TRAINING ACTIVITIES, KNOWN TRAINING EVENTS NUMBERED APPOXIMATELY 100 WITH A STUDENT THROUGHPUT OF APPROXIMATELY 445. APPROXIMATELY 52 PERSONNEL FROM VARIOUS ORGANIZATIONS WERE INVOLVED IN "INSTRUCTOR" ACTIVITIES. THE ADT HAS INITIATED ACTIONS TO BRING TRAINING CONDUCTED WITHIN OTHER ORGANIZATIONS UNDER THE AUSPICES OF THE NCS.
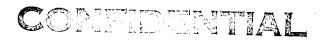
F. EVALUATION OF NCS INTERNAL TRAINING

THE NCS HAS A COMPREHENSIVE EVALUATION SYSTEM THAT
ENSURES THE CONTINUOUS COLLECTION OF DATA FROM NCS
GRADUATES, SUPERVISORS OF NCS GRADUATES, OPERATIONAL USERS
OF OUR TRAINING AND WHEN APPROPRIATE, NONAGENCY ACADEMIC
EXPERTS. THE OVERWHELMING MAJORITY VIEW FROM THESE
EVALUATIONS INDICATES THAT NCS TRAINING IS TECHNICALLY
ADEQUATE AND RELEVANT FOR NSA JOBS. NON-AGENCY ACADEMIC
EXPERTS HAVE REPEATEDLY STATED THAT NCS TRAINING IS FAR
MORE ADVANCED THAN COMPARABLE PROGRAMS IN THE ACADEMIC
COMMUNITY. SPECIFICALLY, THE PRESIDENT OF THE NATIONAL
SOCIETY OF TEACHERS OF RUSSIAN STATED THAT THE NCS RUSSIAN
CURRICULUM WAS FIVE TO TEN YEARS AHEAD OF ANY PROGRAM IN
THE UNITED STATES FOLLOWING HIS IN-DEPTH REVIEW OF OUR
COURSES DURING A CURRICULUM REVIEW. THE OVERALL ASSESSMENT
OF OUR TRAINING BOTH WITHIN AND EXTERNAL TO THE AGENCY IS
THAT IT IS EXCELLENT. ANNEX H IS A STUDY SHOWING NCS
EFFECTIVENESS IN ONE OF OUR LANGUAGE PROGRAMS.

THE ONLY NEGATIVE STATEMENTS ABOUT NCS TRAINING HAVE
CENTERED ON AVAILABILITY OF TRAINING (FREQUENCY OF CLASS
OFFERINGS AND DELAY TIME IN DELIVERY OF TRAINING). THESE
ARE DUE TO RESOURCE ISSUES.

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G. ANTICIPATED CHANGE

THE DEMAND FOR EDUCATION AND TRAINING BY THE NCS TRIPLED

DURING THE PAST FIVE YEARS. REQUIREMENTS WILL CONTINE TO

ESCALATE IN THE FUTURE DUE TO THE JUVENESENCE OF THE

WORKFORCE, CHANGES IN TECHNOLOGIES, TARGETS, AND WORK FORCE

CAPABILITIES. AGENCY CAREER DISCIPLINES WILL CONTINUE TO

BECOME MORE COMPLEX IN PACE WITH TECHNOLOGY. CORE/COMMON

QUALIFICATION REQUIREMENTS AMONG OCCUPATIONAL FAMILIES AND

GROUPS AND BETWEEN SPECIALITIES WITHIN CAREER FIELDS WILL

INCREASE; CROSS DISCIPLINE MERGERS WILL BE REQUIRED; AND

INITIAL TRAINING PERIODS FOR PERSONNEL ENTERING THE

CRYPTOLOGIC DISCIPLINES WILL INCREASE PROPORTIONATELY.

WHILE REQUIREMENTS ARE EXPECTED TO INCREASE, INCREASES IN

FUNDS AND TRAINING PERSONNEL ARE NOT LIKELY.

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ONE RECENT EXAMPLE OF A CHANGE TO THE TRAINING CURRICULUM
RESULTING FROM CHANGING WORKFORCE NEEDS WAS THE DEVELOPMENT
OF A MULTIDISCIPLINED ANALYST COURSE WHICH WILL HELP
FULFILL THE NEED FOR TRAINED ANALYSTS WITH A WORKING
KNOWLEDGE OF SIGNALS ANALYSIS, TRAFFIC ANALYSIS,
CRYPTANALYSIS AND REPORTING AS PART OF A SINGLE,
MULTI-DISCIPLINARY, INTEGRATED PROCESS. ANNEX I CONTAINS
AN EXAMPLE OF A NEW PROGRAM DESIGNED TO MEET AN
ANTICIPATED SHORTFALL IN COLLECTORS. EXAMPLES OF CURRICULA
IN THE PLANNING STAGES INCLUDE ADVANCED COMPUTER SCIENCE
DEALING WITH TOPICS SUCH AS ADVANCED OPERATING SYSTEMS AND
SOFTWARE ENGINEERING, AND SUPERCOMPUTERS. RESOURCES HAVE
BEEN PROGRAMMED TO SUPPORT THESE LAST INITIATIVES BEGINNING
WITH FY-89.