

Science & Engineering Professionals

ELEMENT 1. SCIENTIFIC & TECHNICAL PROBLEM SOLVING

Instructions: Assign a value (0 - 8 9) which best represents employee's contributions in the overall element. Descriptors define contributions at high end of each level.

DISCRIMINATORS					
Level	Point Range	Scope of Project/Level of Oversight	Scientific/Technical Complexity/Creativity	Scientific/Technical Communications/Reporting	Impact/Recognition
I (Student)	0 - 21	Performs tasks specifically assigned by researcher under close supervision.	Performs tasks which are non-complex or include detailed instructions, requiring limited knowledge of subject matter.	Writes in-house documents to convey information about his/her tasks or for similar purposes as assigned.	Recognized by personnel in own unit for providing high quality support and increasing subject matter knowledge.
II	18 - 47	Conducts in-house technical activities and/or may provide contract technical direction with guidance from supervisor or higher-level scientist or engineer.	Works closely with peers in collectively solving problems of moderate complexity, involving limited variables, precedents established in related projects, and minor adaptations to well-established methods and techniques.	Provides data & written analysis for input to scientific papers, journal articles & reports and/or assists in preparing contractual documents or reviews technical reports. Presents technical results of own work orally or in writing, within own organization or to limited external contacts. Work acknowledged in team publications.	Recognized within own organization for technical ability in assigned areas.
III	44 - 66	Conducts in-house technical activities or provides contract technical direction on projects/ programs where the problem must typically be approached through a series of complete & conceptually related studies. Work requires minimal oversight.	Conceives and defines solutions to technical problems which are typically difficult to define, require unconventional or novel approaches, require application of engineering and/ or scientific principles in significant areas or research or development for which no closely related precedents exist, and/or present other features of more than average difficulty.	Writes or is major contributing author on scientific papers, journal articles or reports and/or prepares contract documents and reviews reports pertaining to area of technical expertise <u>OR</u> contributes inventions, new designs or techniques which are of material significance in the solution of problems. Prepares & presents own and/or team technical results, orally or in writing, to varied laboratory, scientific, industry & other government audiences.	Recognized internally and externally by peers, both in governmental and industrial activities, for technical expertise. Is sought out by colleagues who are themselves professionally mature scientists/engineers.
IV	66- 80	Independently defines, leads and manages highly challenging and innovative technical activities consistent with general guidance, or independently directs overall R&D program. Interpretations made are accepted as technically authoritative.	Formulates and guides solutions to very difficult problems in advancing technology and research. Problems resolved have been recognized as critical obstacles to progress or development in areas of exceptional interest.	Lead/sole author on scientific papers, journal articles, or review articles documenting major advances/resolutions in the technical area, some of which had a major impact on advancing the field or are accepted as definitive of important areas, <u>and/or</u> has contributed inventions, new designs or techniques which are regarded as major advances in basic or applied research, and have opened the way for extensive new developments or solved problems of great importance to the scientific field, agency or public; <u>and/or</u> reviews, approves & ensures overall quality of reporting of all technical products of mission area. Prepares & delivers invited or contributed presentations/papers at national/international conferences on technical area; or gives policy-level briefings.	Recognized within the laboratory, DoD and other agencies in broad, or narrow but intensely specialized, technical area; contributions are of such importance and magnitude they serve to move the state of the art forward so that other colleagues must take notice to keep abreast of development in the field; has established professional reputation in the technical/scientific community.
V	81 - 89	Leads broad-scale attack in frontier areas of research which will lead to major modification or important extension of current theory. Leadership influences shaping of agency program goals, advancement of programs & understanding in the total field, and planned activities of numerous scientists in government, academia & private industry.	Areas of research are so complex they must be subdivided into areas at least some of which have a major impact on advancing the field or are accepted as definitive of important areas of the field. Develops new hypotheses, concepts and techniques which are required before substantial progress can be made on areas of extraordinary difficulty.	Scientific articles are published in the most prestigious journals, introduce new research which significantly enhances knowledge in the technical area, and are of such high quality that they set standards for the scientific community. Serves as a senior reviewer/editor of technical literature produced in his/her area of expertise. Prepares and delivers invited or contributed presentations/papers in national/international forums, representing the scientific community as leading expert in his/her field.	Recognized as a leader & authority in an area of wide-spread scientific interest or applied problems of great importance. Sought by members of the national and international scientific community as advisor and consultant in his/her field.

**D
E
S
C
R
I
P
T
O
R
S**

ACCEPTABLE PERFORMANCE STANDARDS: With minor exceptions, work is performed in a timely, efficient, and cooperative manner; and work products demonstrate thorough research, completion of established objectives for the assignment, adherence to instructions and guidance of supervisor and team leader, and overall high quality as deemed by supervisor or appropriate peer group.

SPECIFIC OBJECTIVES, TASKINGS, STANDARDS, AND/OR EXAMPLES MAY BE COMMUNICATED TO EMPLOYEES USING THE CCS FORM OR OTHER APPROPRIATE MEANS

Science & Engineering Professionals

ELEMENT 2. R&D BUSINESS MANAGEMENT

Instructions: Assign a value (0 - 89) which best represents employee's contributions in the overall element. Descriptors define contributions at high end of each level.

DISCRIMINATORS					
Level	Point Range	Corporate Resource Management (Time/Money)	R&D Business Development	Technology Transition/Transfer	
I (Student)	0-21	Uses personal and assigned resources efficiently under guidance of supervisor or team leader.	Provides, obtains or clarifies pre-defined or non-complex information to/from customers as assigned.	Not applicable	D E S C R I P T O R S
II	18 - 47	Manages elements of in-house work units or assists in managing a scientific or support contract. Aware of and makes appropriate use of available resources. Uses personal and assigned resources efficiently under guidance of supervisor or team leader.	As a team member, communicates with customers to understand customer requirements. Stays current in areas of expertise and contributes to new program development. Collects information or provides other technical assistance to proposal marketing activities.	Participates as a team member in demonstrating technology to customers. Contributes technically to development of technology that is transitioned. With guidance, contributes to technical content of partnerships for technology transition and/or transfer (ATDs, MOUs, JDL/Reliance, CRADAs and other dual-use vehicles). Seeks out and uses relevant outside technologies in assigned projects.	
III	44 - 66	Manages technically complex in-house work units or one or more contractual efforts in assigned program area. Plans & controls all assigned resources; makes effective use of facilities to optimize operations; exploits fallout money. Participates in strategic planning at team level, taking cognizance of complementary projects elsewhere to ensure optimal use of resources.	Initiates interactions with customers to understand customer needs. Generates key ideas for program development based on such understanding and knowledge of technical area. Pursues near term business opportunities through proposal preparation.	Develops and presents demonstrations of technology to customers. As a team member, implements partnerships for technology transition and/or transfer (ATDs, MOUs, JDL/Reliance, CRADAs and other dual-use vehicles). Evaluates and incorporates appropriate outside technology in individual or team activities.	
IV	66 - 80	Defines technology area strategy & resource allocations for in-house and contractual programs. For multiple technical areas, conducts overall program planning & coordination and/or program documentation (master plans, roadmaps, Joint Director of Lab/Reliance, etc.). Advocates to higher headquarters on budgetary and programmatic issues for resources. Leads strategic planning & prioritization. Develops strategy to leverage resources from other agencies.	Works at senior level to stimulate development of customer alliances for several research and/or development areas. Generates strategic research objectives and/or business plans for core technical areas. Recognizes warfighting trends, relates business opportunities and convinces lab management to develop/acquire expertise and commit funds. Ensures overall proposal quality.	Organizes, leads and markets overall technology transition and transfer activities for organization at senior executive and command levels. Leads in formulation and oversight of ATDs, MOUs, JDL/Reliance, CRADAs and other dual-use vehicles. Creates an environment that encourages widespread exploitation of both national and international technologies.	
V	81 - 89	Serves as an advisor to NRL/ONR/Navy/DoD on issues of resource management related to his/her area of research, including effective use of equipment, facilities and scientific talent both within and outside NRL.	NRL's opportunities for new business are substantially enhanced by his/her established reputation and on-going professional activities (participation in professional societies, scientific collaborations). Personal stature is a major consideration in agency sponsorship of programs in his/her field.	Because of his/her professional relationships and exceptional knowledge, discerns opportunities for research which will lead to technology transition/ transfer and encourages NRL to focus in such areas.	

ACCEPTABLE PERFORMANCE STANDARDS: With minor exceptions, makes and/or meets time and budget estimates on assigned projects or takes appropriate corrective action; communications are logical, clear, complete and appropriately influence the decision process; decisions and strategies contribute to the appropriate outcome of business dealings; and work products demonstrate thorough research, completion of established objectives, adherence to instructions and guidance of supervisor and team leader, and overall high quality as deemed by supervisor or appropriate peer group.

SPECIFIC OBJECTIVES, TASKINGS, STANDARDS, AND/OR EXAMPLES MAY BE COMMUNICATED TO EMPLOYEES USING THE CCS FORM OR OTHER APPROPRIATE MEANS

Science & Engineering Professionals

ELEMENT 3. COOPERATION AND SUPERVISION

Instructions: Assign a value (0 - 89) which best represents employee's contributions in the overall element. Descriptors define contributions at high end of each level.

DISCRIMINATORS				D E S C R I P T O R S
Level	Point Range	Team Role/Breadth of Influence	Supervision/Subordinate Development (consider only if employee is a supervisor)	
I (Student)	0 - 21	Provides assistance to team members consistent with his/her level of education/experience.	Not applicable	
II	18 - 47	Contributes as a technical researcher or team member to all aspects of team's responsibilities. May technically guide or mentor technician and/or less experienced and more junior level personnel.	Not applicable.	
III	44 - 66	Contributes in a major team role either as a senior scientist/technician or as a task or team leader. Is sought for consultation by peers and mentors team members. If a team leader, guides team to ensure that project goals/charters are adhered to through team effort.	Carries out full range of supervisory duties with respect to lower level staff, including one or more subordinate professionals. Identifies and resolves developmental needs and problems, completes appropriate administrative actions, complies with EEO/Safety and other regulations/policies. Develops/maintains resources and processes which enhance ability of subordinates to effectively carry out their duties.	
IV	66 - 80	Manages all aspects of personnel, teams and/or branches with accountability for mission and programmatic success. Selects research team leaders and establishes team charters. Provides technical expertise and leadership to subordinate team leaders. Ensures that various teams work as cohesive units to achieve the respective charter/goals.	Plans, directs and timely executes R&D programs/problems of such difficulty, scope and complexity that they must be subdivided into separate areas or phases and carried out through subordinate organizational units. Manages policy changes, organizational changes, and changes to structure and content of program(s) directed. Requires substantial coordination and integration of major work assignments, projects, or program segments; exercises final technical authority over the work directed. Carries out full range of supervisory duties with respect to subordinates: Identifies and resolves developmental needs and problems, completes appropriate administrative actions, complies with EEO/Safety and other regulations/policies. Provides leadership in developing, implementing, evaluating, and improving processes and procedures for enhancing performance of subordinates. Hires staff and develops future team leaders and supervisors.	
V	81 - 89	Plays a major role in team efforts as team's scientific/technical advisor/mentor. Provides high-level scientific and/or technical information and guidance in his/her area of expertise. Suggests, influences and directs the R&D efforts of such teams. Serves as a recruiting attraction for recent graduates who seek opportunities to work under his/her inspiration and guidance in order to catch some of his/her imaginative fire, critical judgment, and research technique.	Provides consultation and leadership in highly specialized areas. Provides input on research/development teams outside NRL. Leads own research team consisting of scientific/engineering personnel. Serves as an example; mentors and encourages junior scientists.	

ACCEPTABLE PERFORMANCE STANDARDS: With minor exceptions, carries out duties in a professional and responsive manner; personal interactions foster cooperation and teamwork; and **if employee is a supervisor**, treatment of subordinates is based on merit and fitness considerations, is consistent with law/rules/regulations/policies, is judged fair and equitable by superiors, and fosters commitment/cooperation/teamwork amongst subordinates.

SPECIFIC OBJECTIVES, TASKINGS, STANDARDS, AND/OR EXAMPLES MAY BE COMMUNICATED TO EMPLOYEES USING THE CCS FORM OR OTHER APPROPRIATE MEANS

17 December 1998