OHIO NATIONAL GUARD
ENVIRONMENTAL DIFFERENTIAL PAY
AND HAZARD DIFFERENTIAL PAY PLAN

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1. General Information. This plan contains the Ohio National Guard's plan and guidelines for consideration of situations that may qualify for Environmental Differential Pay/Hazard Differential Pay (EDP/HDP). It establishes procedures for submitting requests for situation review and establishes a committee to conduct assessments and make recommendations for payment of the differential. The Human Resource Officer has the Adjutant General's delegated authority to make decisions concerning differential pay.

2. Purpose. The purpose of this plan is to establish policies and procedures for the implementation and administration of Environmental Differential Pay/Hazard Differential Pay (EDP/HDP).

3. Objective. The Ohio National Guard's objective is to eliminate or reduce to the lowest level possible, all hazards, physical hardships, and working conditions of an unusually severe nature. When these efforts do not correct the unusually severe nature of the hazard, physical hardship, working conditions and compensation is not already paid, then EDP/HDP is warranted. Even though an environmental differential is authorized, supervisors must continue to diligently pursue measures that may eliminate danger and risk which contribute to or cause the hazard, physical hardship, or working condition of an unusually severe nature.

4. Definitions.

a. Hazard: A duty performed under circumstances in which an accident could result in serious injury or death.

b. Physical Hardship: A duty that may not in itself be hazardous, but causes extreme physical discomfort or distress and is not adequately alleviated by protective or mechanical devices, such as duty involving exposure to extreme temperatures for a long period of time, arduous physical exertion, or exposure to fumes, dust, or noise that causes nausea, skin, eye, ear, or nose irritation.

c. Practically Eliminated: The term "practically eliminated" does not require a complete or absolute elimination of potential injury. This term does not mean "virtually" as that would require a higher standard to be applied than is normally accepted in safety and occupational health standards or other applicable Air Force, Army or DoD instructions. The term is more correctly defined as "almost" and is more consistent with the intent of the language of the Code of Federal Regulations (CFR). The CFR requires that potential injury be "practically eliminated" and as such, total elimination of the hazard is not required nor expected.

d. Qualification for Payment: For a technician to receive EDP or HDP payments, the technician must be working in an EDP/HDP committee-approved work situation and be certified by the supervisor on the timecard as having performed the qualifying work.

e. Unusually Severe: Working conditions that are unusually severe include those conditions which are not taken into consideration in the job-grading process. In other words, Position Descriptions (PD) may already describe hazardous or inherently risky work. The work situation is considered "usual" and pay has already been considered in the grading process.

5. Responsibilities.

a. The Adjutant General:

(1) The Adjutant General will appoint a State EDP/HDP committee to review requests and make recommendations to the Human Resource Officer (HRO).

(2) The Adjutant General is the approving authority for local EDP/HDP and has delegated that authority to the Human Resource Officer.

b. The Director of Human Resources (HRO):

(1) Render staff assistance concerning this plan to managers, supervisors, labor organizations, employees and the State EDP/HDP Committee.

(2) The HRO determines the applicability of OPM's established EDP/HDP situations for the Ohio National Guard.

(3) The HRO designated representative will serve as the Chairperson and a voting member of the State EDP/HDP committee.

(4) The HRO will ensure that all approved EDP/HDP situations are reviewed and re-certified at least annually by the State EDP/HDP Committee. When the level of risk in the work place has

been reduced to generally accepted standards such as the DoD, DA, DAF, or OSHA standard, EDP/HDP shall be discontinued.

(5) Ensures the appropriate technician payroll office is promptly informed of approved work situations and their corresponding EDP/HDP rates.

(6) Assists in reviewing and processing of unique hazards that are not covered in the applicable CFR for consideration by OPM for inclusion.

(7) Coordinate with the labor organization having exclusive representation rights prior to effecting a change in the determination of a differential pay entitlement.

c. Comptroller: Will coordinate with HRO to provide payroll data and advise the committee accordingly.

d. The State EDP/HDP Committee:

(1) At a minimum, the EDP/HDP Committee will consist of Army and Air representatives from the following areas. The Adjutant General may appoint additional members.

- Human Resource Office
- Safety Offices
- Environmental Offices
- Occupation and Public Health Offices
- Labor
- Management

(2) The supervisor responsible for submitting each of the current situations being reviewed may be invited to meetings.

(3) Each member will ensure an alternate is named to serve in his or her absence.

(4) Will meet by direction of the Adjutant General or the committee chairperson to review requests for EDP/HDP situations and provide program oversight.

(5) Will recommend differential payment approval/disapproval to the HRO.

(6) Upon receipt of a request for an EDP/HDP situation, the committee will expeditiously conduct an assessment of the EDP/HDP request and prepare a thorough report explaining the research conducted, the standard by which the request was evaluated, and the findings and recommendations.

e. Supervisors:

(1) Must ensure that safety practices and acceptable work procedures are followed. In those instances where hazardous conditions cannot be avoided, a request to approve an established OPM

EDP/HDP situation must be prepared and forwarded through supervisory channels to the Human Resource Office. If the hazardous condition is not an established OPM EDP/HDP situation then contact the Human Resource Office.

(2) The supervisor is responsible to assess potential EDP/HDP situations. The supervisor will review safety/health regulations and consider any means available to reduce the hazardous environment, specifically by consulting with the appropriate specialists in the Safety or Occupational Health offices. If the supervisor cannot improve the conditions, he or she will initiate an EDP/HDP request.

(3) Supervisors do not have the authority to approve or disapprove a request to establish an HDP/EDP situation. Each supervisory level will expeditiously forward the request to the next higher level.

(4) Where EDP/HDP has been approved for payment, supervisors must diligently continue to work toward reducing the element of hazard. When the level of risk in the work place has been reduced to generally accepted standards, such as those accepted by DoD, DA, DAF, or OSHA, supervisors must submit a written request, in standard memorandum format, to discontinue the EDP/HDP. This request details the change that may discontinue the EDP/HDP.

f. Technician Responsibilities:

(1) Technicians, at all levels, must insure every effort is made to protect themselves and others from potential hazards or physical hardships.

(2) Notify your immediate supervisor when hazards or unusually severe working conditions exist.

6. Environmental Differential Pay (EDP).

a. Introduction: The EDP is authorized by 5 CFR 532 as a method of payment to a Federal Wage System (FWS) employee who is exposed to a hazard, physical hardship, or working condition of an unusually severe nature. The EDP is in addition to any other pay and allowances to which a technician is authorized. It is part of basic pay and may be used to compute any additional pay, which is payable under another law.

b. Coverage: Environmental Differential Pay applies only to FWS Technicians as authorized by OPM, NGB and this plan. The EDP will be paid in accordance with applicable regulations and only for those situations approved by the Adjutant General or designated representative.

c. Pay Based on:

(1) Actual Exposure. An employee entitled to an environmental differential on an actual exposure basis, shall be paid a minimum of one hour's differential pay for the exposure. For exposure beyond one hour, the employee shall be paid in increments of one quarter hour for each 15

minutes or portion thereof, in excess of 15 minutes. Entitlement begins with the first instance of exposure and ends one hour later, except when exposure continues beyond the hour, it shall be considered ended at the end of the quarter hour in which exposure actually terminated.

(2) Hours in a pay status. An employee entitled to an environmental differential on the basis of hours in a pay status shall be paid for all hours in a pay status on the day on which he/she is exposed to the situation.

d. Situations for EDP:

(1) The OPM publishes schedules of established work conditions that allow for payment of environmental differentials. These are called "Situations." Examples of situations for which EDP could be authorized are in Attachment 5.

(2) Environmental situations do not qualify for differential compensation solely because an element of hazard or discomfort has been identified in a work situation. The hazard must involve significant actual discomfort or a real threat with no effective measures available to protect the technician from discomforts or practically eliminate threat of injury. (INSERT OPM LINK HERE)

(3) The EDP will not be paid for positions that include hazardous conditions that are recognized and compensated for in the technician's position description or classification standard.

e. Payment for EDP Situations:

(1) A technician subjected at the same time to more than one hazard, physical hardship, or working condition of an unusually severe nature, shall be paid for the exposure which results in the highest differential but shall not be paid more than one differential for the same hours worked.

(2) Establishing the Environmental Differentials. Environmental differentials are stated as percentage amounts and are authorized for categories of exposures in 5 CFR 532, Parts I and II. Calculating the differential is explained in 5 CFR 532.

(3) Supervisors will validate appropriate codes and times on technician timecards to generate differential pay.

7. Hazard Differential Pay (HDP).

a. Introduction: The HDP is authorized by 5 CFR 550 as a method of payment to a General Schedule (GS) technician who is exposed to a hazard, physical hardship, or working condition of an unusually severe nature. The HDP is in addition to any other pay and allowances to which a technician is authorized. It is not part of basic pay and may not be used to compute any additional pay, which is payable under another law.

b. Coverage: The HDP is only paid to General Schedule (GS) technicians. Affected GS technicians will receive differential pay, in accordance with the prescribed regulations. The HDP situations require review and approval by the Adjutant General or designated representative.

c. Pay Based on: A payment authorized to a technician for all hours he/she is in a pay status during the day on which the exposure occurs, including hours in a paid leave status.

d. Situations: The OPM publishes schedules of established work conditions that allow for payment of hazard differentials. These are called "Situations." Duty involving physical hardship means a duty, which may not in itself be hazardous, but which causes extreme physical discomfort or distress which is not adequately alleviated by protective or mechanical devices, and the duty is covered in Appendix A, 5 CFR 550. See Attachment 6 for the table of situations.

e. Limitations on use of HDP:

(1) The HDP will be terminated when adequate safety precautions have reduced the hazard to a level consistent with generally accepted standards that may be applicable, such as those published by OSHA; or when protective or mechanical devices have adequately alleviated physical discomfort or distress.

(2) The HDP will not be paid for positions that include hazardous conditions that are recognized and compensated for in the technician's position description (usually identified in Factor 8 and 9 in the Position Evaluation Statement).

f. Payment of HDP: Hazardous Pay Differential calculations are explained in 5 CFR 550.

(1) A technician subjected at the same time to more than one hazard, physical hardship, or working condition of an unusually severe nature, shall be paid for the exposure which results in the highest differential but shall not be paid more than one differential for the same hours worked.

(2) Establishing the Hazardous Differentials. Hazardous differentials are stated as percentage amounts and are authorized for categories of exposures in 5 CFR 550, Appendix A to Subpart I. Calculating the differential is explained in 5 CFR 550.

(3) Supervisors will validate appropriate codes and times on technician timecards to generate differential pay.

8. Establishing EDP/HDP Situations.

a. General: A supervisor or technician may initiate a request to establish an EDP/HDP situation when an unusually severe hazard or environmental risk exists.

b. All requests for EDP/HDP will be submitted in memorandum format with a JFHQ-OH FORM 5-R-E, JFHQ-OH Staff Action Memorandum, and will include the following items as separate paragraphs. A sample memorandum is in Attachment 2.

(1) Consult 5 CFR 532, parts I or II, or Appendix A of 5 CFR 550 and select the appropriate category and differential rate.

(2) Unusually Severe Duty Description. Provide a detailed description of the duty and what specifically is unusual about the severe conditions being reported. For example, if "dirty work" is the category applicable to the work condition being reported, then the description must justify the unusually severe nature of dirty work over and above what would normally be expected in this occupational series. In addition, include the length of time this situation is likely to exist (months, years, indefinite).

(3) Comparable Situations. Provide any personal knowledge or researched information gathered on similar situations in the State of Ohio that can be investigated and compared to the situation being reported.

(4) Historical Data on this Situation. Describe situations and give statistics on incidents or injuries that have occurred because of exposure to the hazard or physical hardship. For example, three of five employees have submitted CA-1s documenting respiratory problems since the introduction of and exposure to new processes.

(5) Past Efforts to Practically Eliminate the Situation. Supervisors should document all their efforts to eliminate the situation being reported. For example, if multiple solvents have been researched and tried already in an effort to eliminate the physical discomfort and irritation experienced by the employees, write down what they were and why they did not either satisfactorily accomplish the work or practically eliminate the condition. This will assist the committee members in their effort to research and assess the situation.

(6) Justify the Work Requirements. The essential requirement for the work assignment must be explained; describe the available protection that is used to reduce the effect of the adverse environmental conditions as much as possible and confirm the absolute minimum number of technicians who must be exposed to the potential hazard or severe discomfort and still ensure the mission is accomplished.

c. Enclosures. Submit the following as enclosures to the Request for Approval of EDP/HDP Situation memorandum.

(1) Input of local Safety and Occupational Health offices on the nature of the risk and the availability of measures to protect the technician from discomforts or practically eliminate the threat of injury.

(2) The current position description associated with this request. The position description OF-8 must be signed by the technician's supervisor.

(3) List of technicians affected by this request. List the technicians by Name, PD Number, Pay Plan, Occupational Series, and Grade.

(4) Technical operating instructions applicable to the hazardous situation.

(5) All applicable safety, industrial hygiene, and/or environmental directives covering the situation.

d. State EDP/HDP committee will meet and follow these procedures:

(1) The Resources Branch Manager will log in the request, assign a folder to collect required materials and affix a Committee Coordination Checklist (Attachment 3) to the folder.

(2) The Director of Human Resources will determine whether the request is reviewed by the entire committee or a sub-committee. Each reviewing body will have members from Management, Labor, HRO, Safety and Occupational Health.

(3) The Resources Branch Manager will forward the request to the reviewing body and provide support for the review, assessment, and recommendation. The reviewing body will provide a recommendation based upon the submitted materials or request additional information. Committee members will submit findings and reports to the Resources Branch Manager for compilation and dissemination.

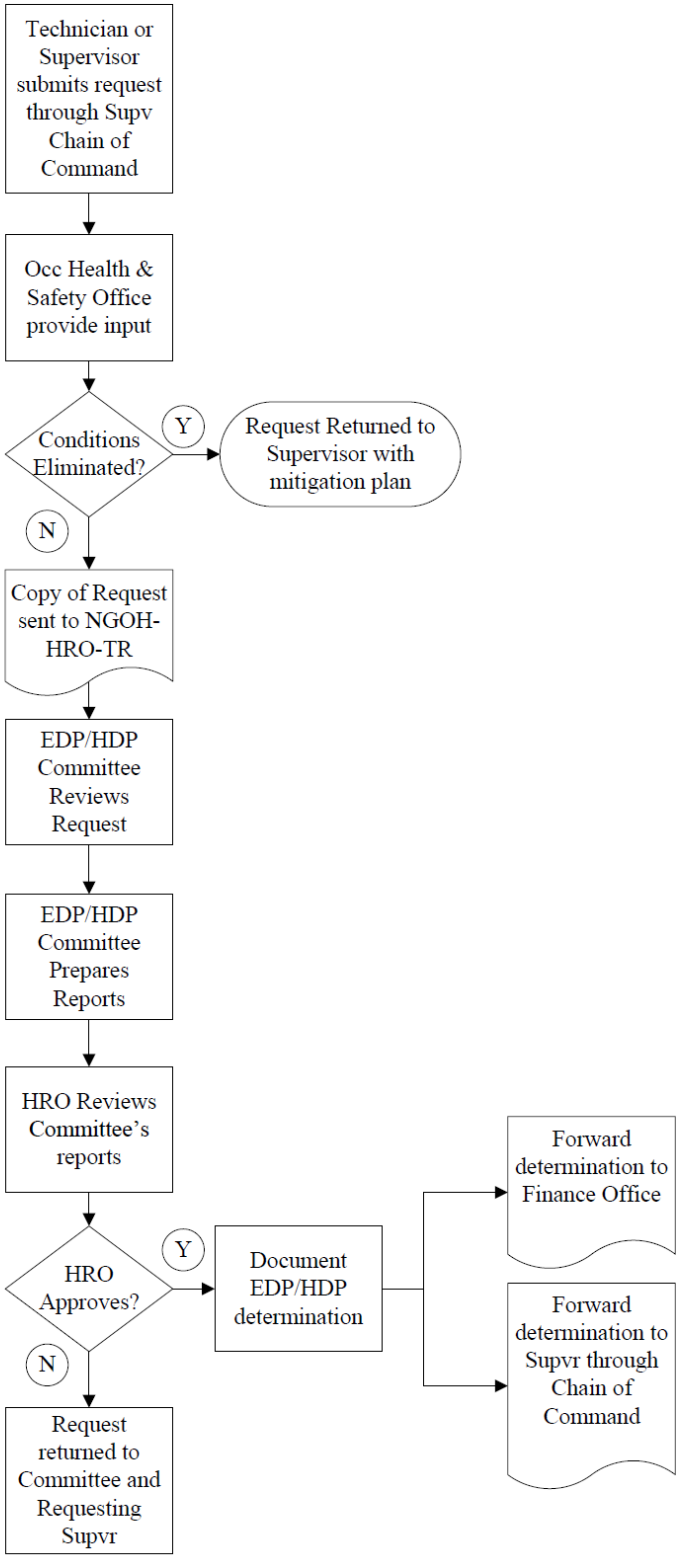
(4) Dissenting reports may be submitted as attachments for consideration by the HRO. In those cases involving a split recommendation between labor, management or another assigned committee member, the HRO will not make a final decision on the request until meeting with the dissenting party in an attempt to resolve the disagreement.

e. If approved, the HRO will determine the effective date of a situation and provide at least two pay periods notice. Disapproved requests will be returned to the requestor and document the rationale for disapproval.

f. The Resources Branch Manager keeps documentation of all requests on file in HRO.

Attachment 1

Request for EDP/HDP Determination Flowchart



Attachment 2

ORGANIZATION LETTERHEAD

OFFICE SYMBOL DATE

MEMORANDUM FOR Director of Human Resources (NGOH-HRO-Z), Attn: Resources Branch Manager, 2825 West Dublin Granville Road, Columbus, Ohio 43235-2789

SUBJECT: Request for [Environmental Differential Pay (EDP)] or [Hazard Differential Pay (HDP)] Situation Approval (CHOOSE ONE)

1. The UNIT requests approval of a [EDP] OR [HDP] situation for the position(s) identified herein.

2. Category and Differential Rate. ENTER CATEGORY AND RATE HERE.

3. Unusually Severe Duty Description. DESCRIBE THE DUTY HERE.

4. Comparable Situations. PROVIDE COMPARABLE SITUATIONS HERE.

5. Historical Data on this Situation. DESCRIBE THE HISTORY OF THE SITUATION HERE.

6. Past Efforts to Practically Eliminate the Situation. DESCRIBE PAST EFFORTS HERE.

7. Justify the Work Requirements. PROVIDE THE WORK REQUIREMENT HERE.

8. Questions may be directed to the undersigned at COMM, DSN, or EMAIL.

SIGNATURE BLOCK

Attachment 3

Committee Coordination Checklist			
	Report Attached Y / N / NA	Report written by:	Recommendation
Management Representative			❒ Concur ❒ Nonconcur
Classification Specialist			❒ Concur ❒ Nonconcur
Safety Specialist			❒ Concur ❒ Nonconcur
Environmental Specialist			❒ Concur ❒ Nonconcur
Occupation and Public Health Specialist			❒ Concur ❒ Nonconcur
Other SME			❒ Concur ❒ Nonconcur
Labor Union Representative			❒ Concur ❒ Nonconcur
Notes on Committee Discussion:			

HRO Determination		
❒ Decision is made to approve differential at a rate of:		
Typed/Printed name of the HRO	Signature	Date
❒ Decision is made to disapprove differential based upon the following findings:		
Typed/Printed name of the HRO	Signature	Date

Attachment 4

EDP/HDP References

1. **5 CFR 532.511**, Environmental Differentials
2. **5 CFR Appendix A to Subpart E of Part 532**, Schedule of Environmental Differentials paid for exposure to various degrees of hazards, physical hardships, and working conditions of an unusual nature

3. **5 CFR 550.901**, Subpart I, Pay for Duty Involving Physical Hardship or Hazard

4. **5 CFR Appendix A to Subpart I of Part 550**, Schedule of Pay Differentials Authorized for Hazardous Duty Under Subpart I

5. **NGB TPR 990.2**, Hours of Duty, Pay and Leave

6. **NGR 385-10**, Army National Guard Safety Program

7. **AFI 91-203**, Air Force Consolidated Occupational Safety Instruction

Attachment 5

Appendix A to Subpart E of Part 532—Schedule of Environmental Differentials Paid for Exposure to Various Degrees of Hazards, Physical Hardships, and Working Conditions of an Unusual Nature

This appendix lists the environmental differentials authorized for exposure to various degrees of hazards, physical hardships, and working conditions of an unusual nature.

Part I—Payment for Actual Exposure

Differential rate (percent)	Category for which payable	Effective date
100	1. *Flying.* Participating in flights under one or more types of the following conditions	Nov. 1, 1970.
	a. Test flights of a new or repaired plane or modified plane when the repair or modification may affect the flight characteristics of the plane;	
	b. Flights for test performance of plane under adverse conditions such as in low altitude or severe weather conditions, maximum load limits, or overload;	
	c. Test missions for the collection of measurement data where two or more aircraft are involved and flight procedures require formation flying and/or rendezvous at various altitudes and aspect angles;	
	d. Flights deliberately undertaken in extreme weather conditions such as flying into a hurricane to secure weather data;	
	e. Flights to deliver aircraft which have been prepared for one-time flight without being test flown prior to delivery flight;	
	f. Flights for pilot proficiency training in aircraft new to the pilot under simulated emergency conditions which parallel conditions encountered in performing flight tests;	
	g. Low-level flights in small aircraft including helicopters at altitude of 150 meters (500 feet) and under in daylight and 300 meters (1,000 feet) and under at night when the flights are over mountainous terrain, or in fixed-wing aircraft involving maneuvering at the heights and times specified above, or in helicopters maneuvering and hovering over water at altitudes of less than 150 meters (500 feet);	
	h. Low-level flights in an aircraft flying at altitudes of 60 meters (200 feet) and under while conducting wildlife surveys and law enforcement activities, animal depredation abatement and making agricultural applications, and conducting or facilitating search and rescue operations; flights in helicopters at low levels involving line inspection, maintenance, erection, or salvage operations;	

	i. Flights involving launch or recovery aboard an aircraft carrier;	
	j. Reduced gravity light testing in an aircraft flying a parabolic flight path and providing a testing environment ranging from weightlessness up through 20 meters per second^2(2 gravity) conditions;	
25	2. *High work*	Nov. 1, 1970.
	a. Working on any structure of at least 30 meters (100 feet) above the ground, deck, floor or roof, or from the bottom of a tank or pit;	
	b. Working at a lesser height:	
	(1) If the footing is unsure or the structure is unstable; or	
	(2) If safe scaffolding, enclosed ladders or other similar protective facilities are not adequate (for example, working from a swinging stage, boatswain chair, a similar support); or	
	(3) If adverse conditions such as darkness, steady rain, high wind, icing, lightning or similar environmental factors render working at such height(s) hazardous.	
15	3. *Floating targets.* Servicing equipment on board a target ship or barge in which the employee is required to board or leave the target vessel by small boat or helicopter	Nov. 1, 1970.
4	4. *Dirty work.* Performing work which subjects the employee to soil of body or clothing:	Nov. 1, 1970.
	a. Beyond that normally to be expected in performing the duties of the classification; and	
	b. Where the condition is not adequately alleviated by the mechanical equipment or protective devices being used, or which are readily available, or when such devices are not feasible for use due to health considerations (excessive temperature, asthmatic conditions, etc); or	
	c. When the use of mechanical equipment, or protective devices, or protective clothing results in an unusual degree of discomfort.	
4	5. *Cold work.* a. Working in cold storage or other climate-controlled areas where the employee is subjected to temperatures at or below freezing (0 degrees Celsius (32 degrees Fahrenheit))	Nov. 1, 1970.
	b. Working in cold storage or other climate-controlled areas where the employee is subjected to temperatures at or below freezing (0 degrees Celsius (32 degrees Fahrenheit)) where such exposure is not practically eliminated by the mechanical equipment or protective devices being used.	Mar. 13, 1977.
4	6. *Hot work.* a. Working in confined spaces wherein the employee is subjected to temperatures in excess of 43 degrees Selsius (110 degrees	Nov. 1, 1970.

	Fahrenheit)	
	b. Working in confined spaces wherein the employee is subjected to temperatures in excess of 43 degrees Selsius (110 degrees Fahrenheit) where such exposure is not practically eliminated by the mechanical equipment or protective devices being used.	Mar. 13, 1977.
4	7. *Welding preheated metals.* Welding various metals or performing an integral part of the welding process when the employee must work in confined spaces in which large sections of metal have been preheated to 66 degrees Celsius (150 degrees Fahrenheit) or more, and the discomfort is not alleviated by protective devices or other means, or discomforting protective equipment must be worn	Nov. 1, 1970.
4	8. *Micro-soldering or wire welding and assembly.* Working with binocular-type microscopes under conditions which severely restrict the movement of the employee and impose a strain on the eyes, in the soldering or wire welding and assembly of miniature electronic components.	Nov. 1, 1970.
25	9. *Exposure to hazardous weather or terrain.* Exposure to dangerous conditions of terrain, temperature and/or wind velocity, while working or traveling when such exposure introduces risk of significant injury or death to employees; such as the following:	July 1, 1972.
	Examples:	
	—Working on cliffs, narrow ledges, or steep mountainous slopes, with or without mechanical work equipment, where a loss of footing would result in serious injury or death.	
	—Working in areas where there is a danger of rockfalls or avalanches.	
	—Traveling in the secondary or unimproved roads to isolated mountaintop installations at night, or under adverse weather conditions (snow, rain, or fog) which limits visibility to less than 30 meters (100 feet), when there is danger of rock, mud, or snowslides	
	—Traveling in the wintertime, either on foot or by vehicle, over secondary or unimproved roads or snowtrails, in sparsely settled or isolated areas to isolated installations when there is danger of avalanches, or during “whiteout” phenomenon which limits visibility to less than 3 meters (10 feet)	
	—Working or traveling in sparsely settled or isolated areas with exposure to temperatures and/or wind velocity shown to be of considerable or very great danger on the windchill chart (Exhibit 1 of this appendix), and shelter (other than temporary shelter) or assistance is not readily available	
	—Snowplowing or snow and ice removal on primary, secondary or other class of roads, when (a) there is danger of avalanche or (b) there is danger	

	of missing the road and falling down steep mountainous slopes, because of lack of snow-stakes, "whiteout" conditions, or sloping icepack covering the snow	
25	10. *Unshored work.* Working in excavation areas before the installation of proper shoring or other securing barriers, or in catastrophe areas, where there is a possibility of cave-in, building collapse or falling debris when such exposures introduce risk of significant injury or death to employees, such as the following:	July 1, 1972.
	Examples:	
	—Working adjacent to the walls of an unshored excavation at depths greater than 1.8 meters (6 feet) (except when the full depth of the excavation is in stable solid rock, hard slag, or hard shale, or the walls have been graded to the angle of repose; that is, where the danger of slides is practically eliminated), when work is performed at a distance from the wall which is less than the height of the wall	
	—Working within or immediately adjacent to a building or structure which has been severely damaged by earthquake, fire, tornado or similar cause	
	—Working underground in the construction and/or inspection of tunnels and shafts before the necessary lining of the passageway have been installed	
	—Duty underground in abandoned mines where lining of tunnels or shafts is in a deteriorated condition	
15	11. *Ground work beneath hovering helicopter.* Participating in operation to attach or detach external load to helicopter hovering just overhead	July 1, 1972.
15	12. *Hazardous boarding or leaving of surface craft.* Boarding or leaving vessels or transferring equipment to or from a surface craft under adverse conditions of foul weather, ice, or night when sea state is high (0.9 meter (3 feet) and above), and deck conditions and/or wind velocity in relation to the size of the craft introduce unusual risks to employees	July 1, 1972.
	Examples:	
	—Boarding or leaving vessels at sea.	
	—Boarding or leaving, or transferring equipment between small boats or rafts and steep, rocky, or coral-surrounded shorelines	
	—Transferring equipment between a small boat and a rudimentary dock by improvised or temporary facility such as an unfastened plank leading from boat to dock	
	—Boarding or leaving, or transferring equipment from or to ice covered floats, rafts, or similar structures when there is danger of capsizing due to	

	the added weight of the ice	
8	13. *Cargo handling during lightering operations.* Off-lading of cargo and supplies from surface ships to Landing Craft-Medium (LCM) boats when swells or wave action are sufficiently severe as to cause sudden listing or pitching of the deck surface or shifting or falling of equipment, cargo, or supplies which could subject the employee to falls, crushing, ejection into the water or injury by swinging cargo hooks	July 1, 1972.
15	14. *Duty aboard surface craft.* Duty aboard a surface craft when the deck conditions or sea state and wind velocity in relation to the size of the craft introduces the risk of significant injury or death to employees, such as the following:	July 30, 1972.
	Participating as a member of a water search and rescue team in adverse weather conditions when winds are blowing at 56 km/h (35 m.p.h.) (classified as gale winds) or in water search and rescue operations at night	
	—Participating as a member of a weather projects team when work is performed under adverse weather conditions, when winds are blowing at 56 km/h (35 m.p.h.), and/ or when seas are in excess of 4.3 meters (14 feet), or when working on outside decks when decks are slick and icy when swells are in excess of 0.9 meter (3 feet)	
	—When embarking, disembarking or traveling in small craft (boat) on Lake Ponchartrain when wind direction is from north northeast or northwest, and wind velocity is over 7.7 meters per second (15 knots); or when travel on Lake Ponchartrain is necessary in small craft, without radar equipment, due to emergency or unavoidable conditions and the trip is made in dense fog run procedures	
	—Participating in deep research vessel sea duty wherein the team member is engaged in handling equipment on or over the side of the vessel when the sea state is high (6.2-meter-per-second (12-knot) winds and 0.9 meter (3-foot) waves) and the work is done on relatively unprotected deck areas	
	—Transferring from a ship to another ship via a chair harness hanging from a highline between the ships when both vessels are under way	
	—Duty performed on floating platforms, camels, or rafts, using tools equipment or materials associated with ship repair or construction activities, where swells or wave action are sufficiently severe to cause sudden listing or pitching of the deck surface or dislodgement of equipment which could subject the employee to falls, crushing, or ejection into the water	
50	15. *Work at extreme heights.* Working at heights 30 meters (100 feet) or more above the ground, deck, floor or roof, or from the bottom of a tank or pit on such open structures as towers, girders, smokestacks and similar	Oct. 22, 1972.

	structures:	
	(1) If the footing is unsure or the structure is unstable; or	
	(2) If safe scaffolding, enclosed ladders or other similar protective facilities are not adequate (for example, working from a swinging stage, boatswain chair, or a similar support); or	
	(3) If adverse conditions such as darkness, steady rain, high wind, icing, lightning, or similar environmental factors render working at such height(s) hazardous	
6	16. *Fibrous Glass Work.* Working with or in close proximity to fibrous glass material which results in exposure of the skin, eyes or respiratory system to irritating fibrous glass particles or slivers where exposure is not practically eliminated by the mechnical equipment or protective devices being used.	Feb. 28, 1975.
50	17. *High Voltage Electrical Energy.* Working on energized electrical lines rated at 4,160 volts or more which are suspended from utility poles or towers, when adverse weather conditions such as steady rain, high winds, icing, lightning, or similar environmental factors make the work unusually hazardous.	Apr. 11, 1977.
6	18. *Welding, Cutting or Burning in Confined Spaces.* Welding, cutting, or burning within a confined space which necessitates working in a horizontal or nearly horizontal position, under conditions requiring egress of at least 4.3 meters (14 feet) over and through obstructions including: (1) access openings and baffles having dimensions which greatly restrict movements, and (2) irregular inner surfaces of the structure or structure components	Jan. 18, 1978.

Part II—Payment on Basis of Hours in Pay Status

Differential rate (percent)	Category for which payable	Effective date
50	1. *Duty aboard submerged vessel.* Duty aboard a submarine or other vessel such as a deep-research vehicle while submerged.	Nov. 1, 1970.
8	2. *Explosives and incendiary material—high degree hazard.* Working with or in close proximity to explosives and incendiary material which involves potential personal injury such as permanent or temporary, partial or complete loss of sight or hearing, partial or complete loss of any or all extremities; other partial or total disabilities of equal severity; and/or loss of life resulting from work situations wherein protective devices and/or safety measures either do not exist or have been developed but have not practically eliminated the potential for such personal injury. Normally, such work situations would result in extensive property damage requiring	Nov. 1, 1970.

	complete replacement of equipment and rebuilding of the damaged area; and could result in personal injury to adjacent employees	
	Examples	
	—Working with, or in close proximity to operations involved in research, in testing, manufacturing, inspection, renovation, maintenance and disposal, such as:	
	—Screening, blending, drying, mixing, and pressing of sensitive explosives and pyrotechnic compositions such as lead azide, black powder and photoflash powder	
	—Manufacture and distribution of raw nitroglycerine	
	—Nitration, neutralization, crystallization, purification, screening and drying of high explosives	
	—Manufacture of propellants, high explosives and incendiary materials	
	—Melting, cast loading, pellet loading, drilling, and thread cleaning of high explosives	
	—Manufacture of primary or initiating explosives such as lead azide	
	—Manufacture of primer or detonator mix	
	—Loading and assembling high-energy output flare pellets	
	—All dry-house activities involving propellants or explosives	
	—Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive explosives and incendiary materials	
	—All operations involving fire fighting on an artillery range or at an ammunition manufacturing plant or storage area, including heavy duty equipment operators, truck drivers, etc.	
	—All operations involving regrading and cleaning of artillery ranges	
	—At-sea shock and vibration tests. Arming explosive charges and/or working with, or in close proximity to, explosive-armed charges in connection with at-sea shock and vibration tests of naval vessels, machinery, equipment and supplies	
	—Handling or engaging in destruction operations on an armed (or potentially armed) warhead	
4	3. *Explosives and incendiary material—low degree hazard.* a. Working with or in close proximity to explosives and incendiary material which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation and possible adjacent employees; minor irritation of the skin; minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used	Nov. 1, 1970.

	b. Working with or in close proximity to explosives and incendiary material which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation and possible adjacent employees; minor irritation of the skin; minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used and wherein protective device and/or safety measures have not practically eliminated the potential for such injury	Mar. 13, 1977.
	Examples	
	—All operations involving loading, unloading, storage and hauling of explosive and incendiary ordnance material other than small arms ammunition. (Distribution of raw nitroglycerine is covered under high degree hazard—see category 2 above.)	
	—Duties such as weighing, scooping, consolidating and crimping operations incident to the manufacture of stab, percussion, and low energy electric detonators (initiators) utilizing sensitive primary explosives compositions where initiation would be kept to a low order of propagation due to the limited amounts permitted to be present or handled during the operations	
	—Load, assembly and packing of primers, fuses, propellant charges, lead cups, boosters, and time-train rings	
	—Weighing, scooping, loading in bags and sewing of ignitor charges and propellant zone charges	
	—Loading, assembly, and packing of hand-held signals, smoke signals, and colored marker signals	
	—Proof-testing weapons with a known overload of powder or charges	
	—Arming/disarming or the installation/removal of any squib, explosive device, or component thereof, connected to or part of a solid propulsion system, including work situations involving removal, inspection, test and installation of aerospace vehicle egress and jettison systems and other cartridge actuated devices and rocket assisted systems or components thereof, when accidental or inadvertent operation of the system or a component might occur	
8	4. *Poisons (toxic chemicals)—high degree hazard.* Working with or in close proximity to poisons (toxic chemicals), other than tear gas or similar irritants, which involves potential serious personal injury such as permanent or temporary, partial or complete loss of faculties and/or loss of life including exposure of an unusual degree to toxic chemicals, dust, or fumes of equal toxicity generated in work situations by processes required to perform work assignments wherein protective devices and/or safety measures have been developed but have not practically eliminated the potential for such personal injury	Nov. 1, 1970.

	Examples	
	—Handling and storing toxic chemical agents including monitoring of areas to detect presence of vapor or liquid chemical agents; examining of material for signs of leakage or deteriorated material; decontaminating equipment and work sites; work relating to disposal of deteriorated material (exposure to conjunctivitis, pulmonary edema, blood infection, impairment of the nervous system, possible death)	
	—Renovation, maintenance, and modification of toxic chemicals, guided missiles, and selected munitions	
	—Operating various types of chemical engineering equipment in a restricted area such as reactors, filters, stripping units, fractioning columns, blenders, mixers, pumps, and the like utilized in the development, manufacturing, and processing of toxic or experimental chemical warfare agents	
	—Demilitarizing and neutralizing toxic chemical munitions and chemical agents	
	—Handling or working with toxic chemicals in restricted areas during production operations	
	—Preparing analytical reagents, carrying out colorimetric and photometric techniques, injecting laboratory animals with compounds having toxic, incapacitating or other effects	
	—Recording analytical and biological tests results where subject to above types of exposure	
	—Visually examining chemical agents to determine conditions or detect leaks in storage containers	
	—Transferring chemical agents between containers	
	—Salvaging and disposing of chemical agents	
4	5. *Poisons (toxic chemicals)—low egress hazard.* a. Working with or in close proximity to poisons (toxic chemicals other than tear gas or similar irritating substances) in situations for which the nature of the work does not require the individual to be in as direct contact with, or exposure to, the more toxic agents as in the case with the work described under high hazard for this class of hazardous agents	Nov. 1, 1970.
	b. Working with or in close proximity to poisons (toxic chemicals other than tear gas or similar irritating substances) in situations for which the nature of the work does not require the individual to be in as direct contact with, or exposure to, the more toxic agents as in the case with the work described under high hazard for this class of hazardous agents and wherein protective devices and/or safety measures have not practically	Mar. 13, 1977.

	eliminated the potential for personal injury	
	Example	
	—Handling for shipping, marking, labeling, hauling and storing loaded containers of toxic chemical agents that have been monitored	
8	6. *Micro-organisms—high degree hazard.* Working with or in close proximity to micro-organisms which involves potential personal injury such as death, or temporary, partial, or complete loss of faculties or ability to work due to acute, prolonged, or chronic disease. These are work situations wherein the use of safety devices and equipment, medical prophylactic procedures such as vaccines and antiserims and other safety measures do not exist or have been developed but have not practically eliminated the potential for such personal injury	Nov. 1, 1970.
	Examples	
	—Direct contact with primary containers of organisms pathogenic for man such as culture flasks, culture test tubes, hypodermic syringes and similar instruments, and biopsy and autopsy material. Operating or maintaining equipment in biological experimentation or production	
	—Cultivating virulent organisms on artificial media, including embryonated hen's eggs and tissue cultures where inoculation or harvesting of living organisms is involved for production of vaccines, toxides, etc., or for sources of material for research investigations such as antigenic analysis and chemical analysis	
4	7. *Micro-organisms—low degree hazard.* a. Working with or in close proximity to micro-organisms in situations for which the nature of the work does not require the individual to be in direct contact with primary containers of organisms pathogenic for man, such as culture flasks, culture test tubes, hypodermic syringes and similar instruments, and biopsy and autopsy material	Nov. 1, 1970.
	b. Working with or in close proximity to micro-organisms in situations for which the nature of the work does not require the individual to be in direct contact with primary containers of organisms pathogenic for man, such as culture flasks, culture test tubes, hypodermic syringes and similar instruments, and biopsy and autopsy material and wherein the use of safety devices and equipment and other safety measures have not practically eliminated the potential for personal injury	Mar. 13, 1977.
8	8. *Pressure chamber and centrifugal stress.* Exposure in pressure chamber which subjects employee to physical stresses or where there is potential danger to participants by reason of equipment failure or reaction to the test conditions; or exposure which subjects an employee to a high degree of centrifugal force which causes an unusual degree of discomfort	July 1, 1972.

	Examples	
	—Participating as a subject in diving research tests which seek to establish limits for safe pressure profiles by working in a pressure chamber simulating diving or, as an observer to the test or as a technician assembling underwater mock-up components for the test, when the observer or technician is exposed to high pressure gas piping systems, gas cylinders, and pumping devices which are susceptible to explosive ruptures	
	—Participating in altitude chamber studies ranging from 5500 to 45,700 meters (18,000 to 150,000 feet) either as subject or as observer exposed to the same conditions as the subject	
	—Participating as subject in centrifuge studies involving elevated G forces above the level of 49 meters per second^2(5 G's) whether or not at reduced atmospheric pressure	
	—Participating as a subject in a rotational flight simulator in studies involving continuous rotation in one axis through 360° at rotation rates greater than 15 r.p.m. for periods exceeding three minutes	
8	9. *Work in fuel storage tanks.* When inspecting, cleaning or repairing fuel storage tanks where there is no ready access to an exit, under conditions requiring a breathing apparatus because all or part of the oxygen in the atmosphere has been displaced by toxic vapors or gas, and failure of the breathing apparatus would result in serious injury or death within the time required to leave the tank	July 1, 1972.
	10. *Firefighting.* Participating or assisting in firefighting operations on the immediate fire scene and in direct exposure to the hazards inherent in containing or extinguishing fires	July 1, 1972.
25	*High degree*	
	—Fighting forest and range fires on the fireline	
8	*Low degree*	
	—All other firefighting	
8	11. *Experimental landing/recovery equipment tests*	July 1, 1972.
	—Participating in tests of experimental or prototype landing and recovery equipment where personnel are required to serve as test subjects in spacecraft being dropped into the sea or laboratory tanks	
8	12. *Land impact or pad abort of space vehicle.* Actual participation in dearming and safing explosive ordnance, toxic propellant, and high-pressure vessels on vehicles that have land impacted or on vehicles on the launch pad that have reached a point in the countdown where no remote	July 1, 1972.

	means are available for returning the vehicle to a safe condition	
4	13. *Mass explosives and/or incendiary material.* Working within a controlled danger area in, on, or around wharves, transfer areas, or temporary holding areas in a transshipment facility when explosives are in the process of being shifted to or from a conveyance	July 1, 1972.
	Such an area shall include land and sea areas within which it has been determined that personnel are subject to an unusual degree of exposure or liability to serious injury or death from potential explosive effect	
	A transshipment facility for this purpose is a port or sea terminal established for the marshalling or temporary assembly of explosives prior to shipment where amounts in excess of 113,400 kilograms (250,000 pounds) net explosive weight (NEW) are present on a regular or recurring basis	
4	14. *Duty aboard aircraft carrier.* Duty aboard an aircraft carrier when exposed to hazards connected with aircraft launch and recovery:	July 1, 1972.
	Examples	
	—Participating in carrier suitability trials aboard aircraft carriers when work is performed on the flight deck during launch, recovery and refueling operations	
	—Operating or monitoring camera equipment adjacent to flight deck in the area of maximum hazard during landing sequence while conducting photographic surveys aboard aircraft carriers during periods of heavy aircraft operations	Mar. 4, 1974.
8	15. *Participating in missile liquid propulsion or solid propulsion situations.* Participating in research and development, or preoperational test and evaluation situation involving missile liquid or solid propulsion systems where mechanical, or other equipment malfunction, or accidental combination of certain fuels and/or chemicals, or transient voltage and current buildup on or within the system when the system is in a “go” condition on the test stand, or sled, can result in explosion, fire, premature ignition or firing	
	Examples	
	—Test stand or track tests, when adequate protective devices and/or safety measures either do not exist or have been developed but have not practically eliminated the potential for personal injury, under any of the following conditions:	
	a. Tanks are being pressurized above normal servicing pressure	
	b. Assembly, disassembly, or repair of contaminated plumbing containing inhibited red fuming nitric acid and unsymmetrical dimethylhydrazine or	

	other hypergolic fuels is required	
	c. Fueling and defueling	
	—Hoisting hypergolic liquid fueled systems into, or out of, a test stand, where the working area is confined, and external plumbing is present resulting in a situation where the plumbing may be damaged causing a leak	
	—Tests on foreign missiles where technical data is questionable or not available	
	—Manned test firings of small, close support missiles for which safety performance data are not yet available	
	—Removal of a missile, propulsion system or component thereof from a test stand, fixture, or environmental chamber where there is reason to believe that the item may be unusually hazardous due to damage resulting from the test	
8	16. *Asbestos.* Working in an area where airborne concentrations of asbestos fibers may expose employees to potential illness or injury. This differential will be determined by applying occupational safety and health standards consistent with the permissible exposure limit promulgated by the Secretary of Labor under the Occupational Safety and Health Act of 1970 as published in title 29, Code of Federal Regulations, §§1910.1001 or 1926.1101. Regulatory changes in §§1910.1001 or 1926.1101 are hereby incorporated in and made a part of this category, effective on the first day of the first pay period beginning on or after the effective date of the changes	Nov. 24, 2003.
8	17. *Working at high altitudes.* Performing work at a land-based work site more than 3900 meters (12,795 feet) in altitude, provided the employee is required to commute to the work site on the same day from a substantially lower altitude under circumstances in which the rapid change in altitude may result in acclimation problems	April 2, 1999.

Attachment 6

Appendix A to Subpart I of Part 550—Schedule of Pay Differentials Authorized for Hazardous Duty Under Subpart I

hazard pay differential, of part 550 pay administration (general)

Duty	Rate of hazard pay differential (percent)	Effective date
Exposure to Hazardous Weather or Terrain:		
(1) *Work in rough and remote terrain.* When working on cliffs, narrow ledges, or near vertical mountainous slopes where a loss of footing would result in serious injury or death, or when working in areas where there is danger of rock falls or avalanches	25	First pay period beginning after July 1, 1969.
(2) *Traveling under hazardous conditions.* (a) When travel over secondary or unimproved roads to isolated mountain top installations is required at night, or under adverse weather conditions (such as snow, rain, or fog) which limits visibility to less than 30 meters (100 feet), when there is danger of rock, mud, or snow slides	25	Do.
(b) When travel in the wintertime, either on foot or by means of vehicle, over secondary or unimproved roads or snow trails, in sparsely settled or isolated areas to isolated installations is required when there is danger of avalanches, or during "whiteout" phenomenon which limits visibility to less than 3 meters (10 feet)	25	Do.
(c) When work or travel in sparsely settled or isolated areas results in exposure to temperatures and/or wind velocity shown to be of considerable danger, or very great danger, on the windchill chart (appendix A–1), and shelter (other than temporary shelter) or assistance is not readily available	25	Do.
(3) *Snow or ice removal operations.* When participating in snowplowing or snow or ice removal operations, regardless of whether on primary, secondary or other class of roads, when (a) there is danger of avalanche, or (b) there is danger of missing the road and falling down steep mountainous slopes because of lack of snow stakes, "white-out" conditions, or sloping ice-pack covering the snow	25	Do.
(4) *Water search and rescue operations.* Participating as a member of a water search and rescue team in adverse weather conditions when winds are blowing at 56 km/h (35 m.p.h.) (classified as gale	25	Do.

winds) or in water search and rescue operations conducted at night		
(5) *Travel on Lake Pontchartrain.* (a) When embarking, disembarking or traveling in small craft (boat) on Lake Pontchartrain when wind direction is from north, northeast, or northwest, and wind velocity is over 7.7 meters per second (15 knots); or	25	Do.
(b) When travelling in small crafts, where craft is not radar equipped, on Lake Pontchartrain is necessary due to emergency or unavoidable conditions and the trip is made in a dense fog under fog run procedures	25	Do.
(6) *Hazardous boarding or leaving of vessels.* When duties (a), (b), or (c) are performed under adverse conditions of foul weather, ice, or night and when the sea state is high (0.9 meter (3 feet) and above):		
(a) Boarding or leaving vessels at sea or standing offshore during lightering or personnel transfer operations	25	First pay period beginning after May 7, 1970.
(b) Boarding, leaving, or transferring equipment between small boats or rafts and steep, rocky, or coral surrounded shorelines.		
(c) Transferring equipment between a small boat and rudimentary dock by improvised or temporary facility such as an unfastened plank leading from boat to dock.		
(7) *Small craft tests under unsafe sea conditions.* Conducting craft tests to determine the seakeeping characteristics of small craft in a seaway when U.S. storm warnings normally indicate unsafe seas for a particular size craft	25	First pay period beginning on or after Sept. 28, 1972.
(8) *Working on a drifting sea ice floe.* When the job requires that the work be performed out on sea ice, e.g., installing scientific instruments and making observations for research purposes	25	First pay period beginning after March 16, 1973.
Exposure to Physiological Hazards:		
(1) *Pressurechamber subject.* (a) Participating as a subject in diving research tests which seek to establish limits for safe pressure profiles by working in a pressure chamber simulating diving or, as an observer to the test or as a technician assembling underwater mock-up components for the test, when the observer or technician is exposed to high pressure gas piping systems, gas cylinders, and pumping devices which are susceptible to explosive ruptures	25	Do.
(b) *Working in pressurized sonar domes.* Performing checkout of	8	First pay period

sonar system after sonar dome has been pressurized. This may include such duties as changing transducer elements, setting of transducer turntables, checking of cables, piping, valves, circuits, underwater telephone, and pressurization plugs		beginning after Feb. 16, 1975.
(c) Working in nonpressurized sonar domes that are a part of an underwater system. Performing certification pretrial inspections, involving such duties as calibrating, adjusting, and photographing equipment, in limited space and with limited egress	4	First pay period beginning after Feb. 16, 1975.
(2) *Simulated altitude chamber subjects. Observers.* Participating in simulated altitude studies ranging from 5500 to 45,700 meters (18,000 to 150,000 feet) either as subject or as observer exposed to the same conditions as the subject	25	Do.
(3) *Centrifuge subjects.* Participating as subject in centrifuge studies involving elevated G forces above the level of 49 meters per second^2(5 G's) whether or not at reduced atmospheric pressure	25	Do.
(4) *Rotational flight simulator subject.* Participating as a subject in a Rotational Flight Simulator in studies involving continuous rotation in one axis through 360° or in a combination of any axes through 360° at rotation rates greater than 15 r.p.m. for periods exceeding three minutes	25	First pay period beginning after July 1, 1969.
Hot Work—Working in confined spaces wherein the employee is subject to temperatures in excess of 43 °C (110 °F)	4	First pay period beginning after Feb. 16, 1975.
(5) *Environmental thermal-chamber tests:* Subjects and observers exposed to the hazards and physical hardships of an environmental chamber-thermal test which simulates adverse weather or sea conditions such as the exposure to subzero temperatures; high heat and humidiity; and cold water, spray, wind, and wave action	25	May 4, 1988.
(6) *Working at high altitudes.* Performing work at a land-based worksite more than 3900 meters (12,795 feet) in altitude, provided the employee is required to commute to the worksite on the same day from a substantially lower altitude under circumstances in which the rapid change in altitude may result in acclimation problems.	8	January 11, 1999.
Exposure to Hazardous Agents, work with or in close proximity to:		
(1) *Explosive or incendiary materials.* Explosive or incendiary materials which are unstable and highly sensitive	25	First pay period beginning after July 1, 1969.
(2) *At-sea shock and vibration tests.* Arming explosive charges	25	Do.

and/or working with, or in close proximity to, explosive armed charges in connection with at-sea shock and vibration tests of naval vessels, machinery, equipment and supplies		
(3) *Toxic chemical materials.* Toxic chemical materials when there is a possibility of leakage or spillage	25	Do.
(4) *Fire retardant materials tests.* Conducting tests on fire retardant materials when the tests are performed in ventilation restricted rooms where the atmosphere is continuously contaminated by obnoxious odors and smoke which causes irritation to the eyes and respiratory tract	25	Do.
(5) *Virulent biologicals.* Materials of micro-organic nature which when introduced into the body are likely to cause serious disease or fatality and for which protective devices do not afford complete protection	25	Do.
(6) Asbestos. Significant risk of exposure to airborne concentrations of asbestos fibers in excess of the permissible exposure limits (PELS) in the standard for asbestos provided in title 29, Code of Federal Regulations, §§1910.1001 or 1926.58, when the risk of exposure is directly connected with the performance of assigned duties. Regulatory changes in §1910.1001 or 1926.58 are hereby incorporated in and made a part of this category, effective on the first day of the first pay period beginning on or after the effective date of the changes	8	June 8, 1993
Participating in Liquid Missile Propulsion Tests and Certain Solid Propulsion Operations:		
(1) *Tanking and detanking.* Tanking or detanking operations of a missile or the test stand "run" bottles with liquid propellants	25	First pay period beginning after July 1, 1969.
(2) *Hoisting a tanked missile.* Hoisting a tanked missile or a solid propellant propulsion system into and/or over the test stand	25	Do.
(3) *Pressure tests.* Pressure tests on loaded missiles, missile tanks, or run bottles during prefire preparations	25	Do.
(4) *Test stand tests.* Test stand operations on loaded missiles under environmental conditions where the high or low temperatures could cause a failure of a critical component	25	Do.
(5) *Disassembly and breakdown.* Disassembly and breakdown of a contaminated missile system or test stand plumbing after test	25	Do.
(6) *"Go" condition test stand work.* Working on any test stand above the 15-meter (50-foot) level or any stand work while the system is in a "go" condition	25	Do.

(7) *Arming and dearming propulsion systems.* Arming, dearming or the installation and/or removal of any squib, explosive device, or a component thereof connected to, or part of, any live or potentially expended liquid or solid propulsion system	25	Do.
(8) *Demolition and destruct tests.* Demolition, hazards classification, or destruct type tests where the specimen is nonstandard and/or unproven and the test techniques do not conform to standard or proven procedures	25	Do.
Work in Fuel Storage Tanks:		
When inspecting, cleaning or repairing fuel storage tanks where there is no ready access to an exit, under conditions requiring a breathing apparatus because all or part of the oxygen in the atmosphere has been displaced by toxic vapors or gas, and failure of the breathing apparatus would result in serious injury or death within the time required to leave the tank	25	Do.
Firefighting:		
(1) *Forest and range fires.* Participating as a member of a firefighting crew in fighting forest and range fires on the fireline	25	Do.
(2) *Equipment, installation, or building fires.* Participating as an emergency member of a firefighting crew in fighting fires of equipment, installations, or buildings	25	Do.
(3) *In-water under-pier firefighting operations.* Participating in in-water under-pier firefighting operations (involving hazards beyond those normally encountered in firefighting on land, e.g., strong currents, cold water temperature, etc.)	25	Do.
Work in Open Trenches:		
Work in an open trench 4.6 meters (15 feet) or more deep until proper shoring has been installed	25	Do.
Underground Work:		
Work underground performed in the construction of tunnels and shafts, and the inspection of such underground construction, until the necessary lining of the shaft or tunnel has eliminated the hazard	25	Do.
Underwater Duty:		
(1) *Submerged submarine or deep research vehicle.* Duty aboard a submarine or deep research vehicle when it submerges	25	Do.
(2) *Diving.* Diving, including SCUBA (self-contained underwater	25	Do.

breathing apparatus) diving, required in scientific and engineering pursuits, or search and rescue operations, when:		
(a) at a depth of 6 meters (20 feet) or more below the surface; or,		
(b) visibility is restricted; or,		
(c) in rapidly flowing or cold water; or,		
(d) vertical access to the surface is restricted by ice, rock, or other structure; or,		
(e) testing or working with hardware which presents special hazards (such as work with high voltage equipment or work with underwater mockup components in an underwater space simulation study).		
Sea Duty Aboard Deep Research Vessels:		
Participating in sea duty wherein the team member is engaged in handling equipment on or over the side of the vessel when the sea-state is high (6.2 meter-per-second winds (12-knot winds) and 0.9-meter waves (3-foot waves) and the work is done on deck in relatively unprotected areas	25	Do.
Collection of Aircraft Approach and Landing Environmental Data:		
When operating or monitoring camera equipment adjacent to flight deck in the area of maximum hazard during landing sequence while conducting photographic surveys aboard aircraft carriers during periods of heavy aircraft operations	25	First pay period beginning after July 1, 1969.
Experimental Landing/Recovery Equipment Tests:		
Participating in tests of experimental or prototype landing and recovery equipment where personnel are required to serve as test subjects in spacecraft being dropped into the sea or laboratory tanks	25	Do.
Land Impact or Pad Abort of Space Vehicle:		
Actual participating in dearming and safing explosive ordinance, toxic propellant and high pressure vessels on vehicles that have land impacted or on vehicles on the launch pad that have reached a point in the countdown where no remote means are available for returning the vehicle to a safe condition	25	Do.
Height Work:		
Working on any structure of at least 15 meters (50 feet) above the base level, ground, deck, floor, roof, etc., under open conditions, if the structure is unstable or if scaffolding guards or other suitable protective facilities are not used, or if performed under adverse	25	Do.

conditions such as snow, sleet, ice on walking surfaces, darkness, lightning, steady rain, or high wind velocity		
Flying, participating in:		
(1) *Pilot proficiency training.* Flights for pilot proficiency training in aircraft new to the pilot under simulated emergency conditions which parallel conditions encountered in performing flight tests	25	Do.
(2) *Delivery of new aircraft for flight testing.* Flights to deliver aircraft which has been prepared for one-time flight without being test flown prior to delivery flight	25	Do.
(3) *Test flights of new modified, or repaired aircraft.* Test flights of a new or repaired aircraft or modified aircraft when the modification may affect the flight characteristics of the aircraft	25	Do.
(4) *Reduced gravity—parabolic arc flights—subjects/observers.* Reduced gravity flight testing in an aircraft flying a parabolic flight path and providing a testing environment ranging from weightlessness up through +20 meters per second^2(+2 gravity conditions)	25	Do.
(5) *Launch and recovery.* Test flights involving launch and recovery aboard an aircraft carrier	25	Do.
(6) *Limited control flights.* Flights undertaken under unusual and adverse conditions (such as extreme weather, maximum load or overload, limited visibility, extreme turbulence, or low level flights involving fixed or tactical patterns) which threaten or severely limit control of the aircraft	25	Do.
(7) *Flight tests of expandable aircraft tires.* Landing to test aircraft tires designed to deflate upon retraction, undertaken to appraise the normal deflate-reinflate cycle and also to evaluate the capability to make a satisfactory landing with the tires deflated	25	Do.
(8) *Landing and taking-off in polar areas.* Landing in polar areas on unprepared snow or ice surfaces and/or taking-off under the same conditions	25	Do.
Experimental Parachute Jumps:		
Participating as a jumper in field exercises to test and evaluate new types of jumping equipment and/or jumping techniques	25	Do.
Ground Work Beneath Hovering Helicopter:		
Participating in ground operations to attach external load to helicopter hovering just overhead	25	Do.
Sling-suspended transfers. When performance of duties requires	25	First pay period

transfer from a helicopter to a ship via a sling on the end of a steel cable or from a ship to another ship via a chair harness hanging from a highline between the ships when both vessels are underway		beginning after Oct. 11, 1969.
Carrier suitability trials aboard aircraft carriers. Participating in carrier suitability trials aboard aircraft carriers when work is performed on the flight deck during launch, recovery, and refueling operations	25	Do.
Cargo handling during lightering operations. Off-loading of cargo and supplies from surface ships to Landing Craft—Medium (LCM) boats involving exposure not only to falling cargo but such other hazards as shifting cargo within the LCM, swinging cargo hooks, and possibility of falling between the LCM and cargo vessel	25	Do.
Work in unsafe structures: Working within or immediately adjacent to a building or structure which has been severely damaged by earthquake, fire, tornado, flood, or similar cause, when the structure has been declared unsafe by competent technical authority, and when such work is considered necessary for the safety of personnel or recovery of valuable materials or equipment, and the work is authorized by competent authority	25	First pay period beginning on or after Apr. 11, 1976.
Tropical Jungle Duty: Work outdoors in undeveloped jungle regions outside the continental United States. Work must involve both of the following:		
(1) An unusual degree of physical hardship caused by high heat, humidity, or other inclement conditions; and		
(2) An unusual danger of serious injury or illness due to:		
(a) Travel on unimproved roads or rudimentary trails in rugged terrain (e.g., walking on narrow trails in steep mountainous areas, fording deep, fast-moving rivers, and crossing deep crevasses via log or other unsafe means);		
(b) Immediate presence of dangerous wildlife (e.g., venomous snakes, poisonous insects, and large carnivores); or		
(c) Known exposure to serious disease for which adequate protection cannot be provided.	25	June 14, 1989.