



## **STATE OF COLORADO**

### **CLASS SERIES DESCRIPTION**

**July 1, 2007**

#### **AIR TRAFFIC CONTROLLER**

H4N1TX TO H4N3XX

#### **DESCRIPTION OF OCCUPATIONAL WORK**

This class series uses three levels in the Professional Services Occupational Group and describes highly technical work in controlling aircraft on and within a terminal airport area according to established policies and procedures to safely manage airport traffic and minimize delays. Positions communicate with aircraft and provide clearances and instructions on takeoffs and landings. The work includes providing radio, telephone, and computer information on such things as runway usage, weather information, taxiing and other airfield movement instructions, and pertinent data on other aircraft operations. Work includes the coordination and transfer of aircraft to other controlling agencies.

The work includes applying visual, procedural, and radar separation criteria to varying types of aircraft performing various takeoff and landing maneuvers in all kinds of weather under normal and emergency flight conditions. This work involves coordination with ground support units for such things as maintenance, airfield lighting, snow removal, and emergency fire/medical/disaster responses. Positions monitor airfield operations to insure that facilities and communication and navigational equipment are operational. The work includes operating and troubleshooting, if necessary, communications and computer equipment. Positions maintain proper documentation of activities and problems in the form of logs, recordings, and work orders.

The work may include the design and provision of controller training courses for initial airport orientation and refresher training. Some positions are involved in the design and/or modification of airport procedural patterns. All positions in this class series are required to maintain FAA certification to perform these duties.

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### **AIR TRAFFIC CONTROLLER**

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## **AIR TRAFFIC CONTROLLER I**

H4N1TX

### **CONCEPT OF CLASS**

This class describes the fully operational level controller and those positions accomplishing their initial airfield orientation and training following FAA certification. Positions in this level perform a variety of controller duties in directing aircraft movements both on the ground and in-flight. Positions coordinate and relay clearances for IFR and VFR traffic for departures, arrivals and landings. Positions provide instructions to pilots to insure safe aircraft operations in mixed traffic patterns under normal and emergency conditions. Positions monitor the condition and operation of all communications, navigational, and airfield facilities and report all discrepancies, both to users and maintenance. Fully operational controllers typically function as part of a team/shift, but may solely accomplish all controller actions in very low traffic conditions.

### **FACTORS**

**Allocation must be based on meeting all of the four factors as described below.**

**Decision Making --** The decisions regularly made are at the operational level, as described here. Within limits set by the specific process, choices involve deciding what operation is required to carry out the process. This includes determining how the operation will be completed. For example, positions decide how to integrate heavy aircraft into traffic patterns. By nature, data needed to make decisions are numerous and variable so reasoning is needed to develop the practical course of action within the established process. Choices are within a range of specified, acceptable standards, alternatives, and technical practices. For example, when pilots request missed approach instructions, positions decide which clearance procedure is most appropriate.

**Complexity --** The nature of, and need for, analysis and judgment is patterned, as described here. Positions study airfield operations and approaching weather information to determine what it means and how it fits together in order to get practical solutions in the form of aircraft routing instructions. Guidelines in the form of standard departure and arrival routes/corridors exist for most situations. Judgment is needed in locating and selecting the most appropriate of these guidelines which may change for varying circumstances as the task is repeated. This selection and interpretation of guidelines involves choosing from alternatives where all are correct but one is better than another depending on the given circumstances of the situation. For example, under aircraft emergency situations, positions elect the most appropriate clearances depending upon variables such as other traffic, weather conditions, nature of emergency and requested assistance.

**Purpose of Contact --** Regular work contacts with others outside the supervisory chain, regardless of the method of communication, are for the purpose of both of the following:

Exchanging or collecting information with contacts. This involves giving learned information that is readily understandable by the recipient or collecting factual information in order to solve

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factual problems, errors, or complaints. For example, positions explain airfield operating limitations and traffic pattern requirements.

Detecting or discovering information or problems by interviewing or investigating where the issues or results of the contact are not known ahead of time. For example, positions detect reasons for flight plan deviations and provide amended clearances.

**Line/Staff Authority** -- The direct field of influence the work of a position has on the organization is as an individual contributor. The individual contributor may explain work processes and train others. The individual contributor may serve as a resource or guide by advising others on how to use processes within a system or as a member of a collaborative problem-solving controller team. This level may include positions performing supervisory elements that do not fully meet the criteria for the next level in this factor.

## **AIR TRAFFIC CONTROLLER II**

H4N2XX

### **CONCEPT OF CLASS**

This class describes the controller-in-charge level when trained and designated. In addition to performing duties of a fully-operational controller specialist, positions in this level function as watch supervisor responsible for the overall operation of the facility during his or her shift. Watch supervisory responsibilities are as outlined in appropriate handbooks and manuals. This class differs from the Air Traffic Controller I class in the Decision Making factor only.

### **FACTORS**

**Allocation must be based on meeting all of the four factors as described below.**

**Decision Making** -- The decisions regularly made are at the process level, as described here. Within limits set by professional standards, the agency's available technology and resources, and program objectives and regulations established by a higher management level, choices involve determining the process, including designing the set of operations. For example, as a controller-in-charge, positions implement necessary changes to airfield traffic control procedures. The general pattern, program, or system exists but must be individualized. This individualization requires analysis of data that is complicated. Analysis is breaking the problem or case into parts, examining these parts, and reaching conclusions that result in processes. This examination requires the application of known and established theory, principles, conceptual models, professional standards, and precedents in order to determine their relationship to the problem. New processes or objectives require approval of higher management or the agency with authority and accountability for the program or system. For example, positions analyze traffic types/capabilities, sequence options, and separation criteria to decide arrival and departure routes or restrictions on ground and flight operations.

**Complexity** -- The nature of, and need for, analysis and judgment is patterned, as described here. Positions study conflicting traffic patterns and other information to determine what it means and

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how it fits together in order to get practical solutions in the form of revised clearances to pilots. Guidelines in the form of separation criteria exist for most situations. Judgment is needed in locating and selecting the most appropriate of these guidelines which may change for varying circumstances as the task is repeated. This selection and interpretation of guidelines involves choosing from alternatives where all are correct but one is better than another depending on the given circumstances of the situation. For example, positions select appropriate sequencing options to provide IFR or VFR controlling facilities with information necessary for operations.

**Purpose of Contact** -- Regular work contacts with others outside the supervisory chain, regardless of the method of communication, are for the purpose of both of the following:

Detecting or discovering information or problems by interviewing or investigating where the issues or results of the contact are not known ahead of time. For example, positions investigate reports of near-miss incidents to determine causes and possible remedies.

Advising, counseling, or guiding the direction taken to resolve complaints or problems and influence or correct actions or behaviors. For example, positions advise designers of traffic routing procedures and pilots on ways to avoid violating noise abatement ordinances or agreements.

**Line/Staff Authority** -- The direct field of influence the work of a position has on the organization is as an individual contributor. The individual contributor may explain work processes and train others. The individual contributor may serve as a resource or guide by advising others on how to use processes within a system or as a member of a collaborative problem-solving controller team. This level may include positions performing supervisory elements that do not fully meet the criteria for the next level in this factor.

### **AIR TRAFFIC CONTROLLER III**

H4N3XX

#### **CONCEPT OF CLASS**

This class describes the first supervisor level. Positions in this level function as tower chief. The responsibilities include oversight of tower operations; planning changes to airfield flight patterns and procedures; oversight of training for all controllers; insuring FAA flight operations standards, regulations, and procedures are adhered to; and supervising the day-to-day airfield traffic control operations and personnel. This class differs from the lower Air Traffic Controller II class in the Complexity, Purpose of Contact, and Line/Staff Authority factors.

#### **FACTORS**

**Allocation must be based on meeting all of the four factors as described below.**

**Decision Making** -- The decisions regularly made are at the process level, as described here. Within limits set by professional standards, the agency's available technology and resources, and program objectives and regulations established by a higher management level, choices involve

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determining the process, including designing the set of operations. For example, positions design and implement changes to airfield traffic control procedures. The general pattern, program, or system exists but must be individualized. This individualization requires analysis of data that is complicated. Analysis is breaking the problem or case into parts, examining these parts, and reaching conclusions that result in processes. This examination requires the application of known and established theory, principles, conceptual models, professional standards, and precedents in order to determine their relationship to the problem. New processes or objectives require approval of higher management or the agency with authority and accountability for the program or system. For example, positions analyze traffic types and capabilities, sequence options, and separation criteria to decide arrival and departure routes or restrictions on ground and flight operations.

**Complexity** -- The nature of, and need for, analysis and judgment is formulative, as described here. Positions evaluate the relevance and importance of flight theories, concepts, and principles in order to tailor them to develop a different approach or tactical plan to fit specific circumstances. While general policy, precedent, or non-specific practices exist, they are inadequate so they are relevant only through approximation or analogy. For example, positions analyze the impact of degraded low-altitude flight operations to determine if minimum altitudes on departure routes are appropriate. In conjunction with theories, concepts, and principles, positions use judgment and resourcefulness in tailoring the existing guidelines so they can be applied to particular circumstances and to deal with emergencies. For example, positions develop emergency routing procedures to avoid overflight of highly populated areas for safety considerations.

**Purpose of Contact** -- Regular work contacts with others outside the supervisory chain, regardless of the method of communication, are for the purpose of advising, counseling, or guiding the direction taken to resolve complaints or problems and influence or correct actions or behaviors. For example, positions advise designers of traffic routing procedures and pilots on ways to avoid violating noise abatement ordinances or agreements.

**Line/Staff Authority** -- The direct field of influence the work of a position has on the organization is as a unit supervisor. The unit supervisor is accountable, including signature authority, for actions and decisions that directly impact pay, status, and tenure of three or more full-time equivalent positions. At least one of the subordinate positions must be in the same series or at a comparable conceptual level. The elements of formal supervision must include providing documentation to support recommended corrective and disciplinary actions, signing performance plans and appraisals, and resolving informal grievances.

### **DEFINITIONS**

Federal Aviation Authority (FAA) – U.S. Government agency charged with responsibility to provide safe and efficient control of air traffic and the licensure/certification of aircraft and pilots.

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Instrument Flight Rules (IFR) – means rules governing the procedures for conducting instrument flight under instrument meteorological conditions.

Visual Flight Rules (VFR) – means rules that govern the procedures for conducting flight under visual conditions.

### **ENTRANCE REQUIREMENTS**

Minimum entry requirements and general competencies for classes in this series are contained in the State of Colorado Department of Personnel web site.

For purposes of the Americans with Disabilities Act, the essential functions of specific positions are identified in the position description questionnaires and job analyses.

### **CLASS SERIES HISTORY**

Revised 7/1/07 (DLF). Changed pay grades upwards; no changes to class description. Published proposed 3/13/06.

Revised 7/1/00 (DLF). Changes factors and concept of Air Traffic Controller II class. Published draft 5/11/00.

Revised 9/1/98 (CVC). Changed class codes due to PS Consolidation study.

Create 4/1/98 (DLF). Published new series as proposed 1/30/98.

### **SUMMARY OF FACTOR RATINGS**

<b>Class Level</b>	<b>Decision Making</b>	<b>Complexity</b>	<b>Purpose of Contact</b>	<b>Line/Staff Authority</b>
Air Traffic Controller I	Operational	Patterned	Exchange & Detect	Indiv. Contributor
Air Traffic Controller II	Process	Patterned	Detect & Advise	Indiv. Contributor
Air Traffic Controller III	Process	Formulative	Advise	Unit Supervisor

ISSUING AUTHORITY: Colorado Department of Personnel and Administration