

CHAPTER 80

Aircraft

CHAPTER 80 – AIRCRAFT**81 Infrared Aircraft and Contract Large Transport Aircraft**

Infrared Aircraft are National Interagency Resources.

81.1 Infrared Aircraft – Forest Service

<u>Aircraft</u>	<u>Flight Rate Per Hour</u>
N144Z – Cessna Citation	\$ 1370
N149Z – King Air 200	\$ 987

Rates are subject to change. For further information, contact the FS Region 4 Aviation Operations Office.

PERFORMANCE**N144Z Cessna Citation**

- Block speed – 370 kts.
- IR Scanner speed – 240 kts
- Fuel – Jet.
- Endurance for infrared missions (2 Pilots, 1 Technician) 3.5 Hours (with reserves)
- Maximum take-off weight – 14,800 lbs
- Runway – Hard surface, minimum 4,000 feet @ sea level
- Passenger configuration – 6 passengers + baggage.

N149Z King Air 200 (Cargo Door)

- Block speed – 240 kts.
- IR Scanner speed – 220 kts
- Fuel – Jet
- Endurance for infrared missions (2 Pilots, 1 Technician) 4 Hours (with reserves)
- Maximum take-off weight – 12,500 lbs.
- Runway – Hard surface, minimum 4,000 feet @ sea level
- Passenger configuration – 6-8 passengers + baggage
- Cargo configuration – 2,000 lbs. (2 Pilot), 2 + 30 hour endurance (with reserves).

81.1.1 Airborne Thermal Infrared (IR) Fire Mapping and Detection

A. Capabilities and Limitations:

1. Infrared Scanners:

a. Infrared energy can penetrate smoke and haze, but is limited by clouds and fog. Infrared energy follows a line-of-sight path.

b. For best results, imagery should be taken between the hours of 1000-1400 and between one (1) hour after sunset and one (1) hour before sunrise. Imagery flights can be made at other times, but expect degradation in fire detection.

2. Infrared Aircraft:

a. All infrared aircraft can air drop imagery. The final decision for a drop will be left to the Pilot-in-Command and only when positive air-to-ground communications has been established.

b. Aircraft normally require a 5,000 foot, hard-surfaced, lighted runway. A 28-volt, 1,000 amp ground power unit (GPU) should be provided for aircraft starting.

81.2 NIFC Large Transport Contract Aircraft

<u>Aircraft</u>	<u>Flight Rate Per Hour</u>	<u>Daily Availability</u>	<u>Passenger Seating</u>
Boeing 737-200	\$7013	\$9041	101

82 Tactical Aircraft**82.1 Lead Planes/Aerial Supervision Aircraft – FS**

For a complete list of all Lead Planes/Aerial Supervision Aircraft, refer to the following web site:

http://www.nifc.gov/nicc/logistics/references/Lead_Planes.pdf

82.2 Air Tactical Avionics Typing

Required Equipment	Type 1	Type 2	Type 3	Type 4
Aeronautical VHF-AM radio transceivers	2 each	2 each	2 each	2 each
Aeronautical VHF-FM radio transceivers	2 each	1 each	1 each	-
Transponder & altitude encoder	X	X	X	X
Panel Mounted GPS	1 each	1 each	Note 1	Note 1
Handheld GPS	-	-	Note 1	Note 1
Separate audio control systems for pilot and ATGS	X	X	-	-
An audio control system	-	-	X	X
Audio/mic jacks with PTT capability in the rear seat connected to the co-pilot/ATGS's audio control system	X	X	-	-
An intercommunication System	X	X	X	X
AUX-FM provisions	Note 2	Note 2		
AFF	Note 3	Note 3	-	-
2 - aeronautical VHF-FM antennas	-	-	-	X
An accessory power source	-	-	-	X
A portable Air Attack kit				X

Note 1: Type 3 and 4 aircraft must have either a panel mounted GPS or a handheld GPS (subject to local contract requirements).

Note 2: Type 1 and 2 aircraft must have either AUX-FM provisions or an additional aeronautical VHF-FM radio transceiver.

Note 3: AFF is required on Type 1 and 2 exclusive use aircraft.

Note 4: Air Attack kits may be agency or contractor furnished.

82.3 Smokejumper Aircraft

For a complete list of all Smokejumper Aircraft, refer to the following web site:

http://www.nifc.gov/nicc/logistics/references/Smokejumper_Aircraft.pdf

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83 Federal Airtankers

The primary mission of federally contracted large fixed-wing airtankers is initial attack operations.

The NICC will prioritize and allocate federal airtankers by positioning them in Areas of current or predicted high wildfire danger or activity.

For a complete list of all federal airtankers, refer to the following web site:
http://www.nifc.gov/nicc/logistics/references/Air_Tankers.pdf

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