Shasta-Trinity National Forest

Aviation Mission Operational Plan

4/30/2024 Version 8.0

USDA FOREST SERVICE, SHASTA TRINITY NATIONAL FOREST

AVIATION MISSION OPERATIONAL PLAN

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SHASTA-TRINITY AVIATION MISSION OPERATIONAL PLAN

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SHASTA-TRINITY AVIATION MISSION OPERATIONAL PLAN

1.0 Shasta-Trinity National Forest Message

INTENT: The intent of the Shasta-Trinity National Forest (SHF) leadership is for all personnel engaged in fire and aviation activities to know they are empowered to make hazard identification, hazard communication and risk management the number one priority for all operations.

PURPOSE: The SHF Aircraft Mission Operations Plan (AMOP) is planned to provide personnel conducting fire and aviation operations on the SHF readily available information that is relevant to daily operations. All incoming aircrews should receive an in briefing to operations on the forest or incident. If at any time any user(s) of this document have questions on any operations that cannot be answered with the resources available. The expectation is that appropriate contacts be made with key stations or personnel to enable us to assist your operations as needed. Key contact information is contained within this document.

SHASTA-TRINITY NATIONAL FOREST: The SHF headquarters is co-located with the Northern California Service Center at the Redding Municipal Airport. The forest unit is divided up into four management units, The South Fork Management Unit (**SFMU**/Division 2), the Trinity River Management Unit (**TRMU**/Division 3), the Shasta Lake Management Unit (**SLMU**/Division 5), and the Shasta McCloud Management Unit (**SMMU**/Division 7). The SHF shares boundaries with the Mendocino, Six Rivers, Klamath, and Lassen National Forests. In addition, the forest is intermixed and adjacent to several Cal Fire Units including the Shasta-Trinity (SHU), Lassen Modoc (LMU), Humboldt (HUU) and Tehema-Glenn (TGU) units.

The SHF is the largest forest in California with elevations from 1000 to 14,162 feet. The 2.1 million acre forest encompasses five wilderness areas, hundreds of mountain lakes and 6,278 miles of streams and rivers. ***Typical summertime temperatures in the lower elevations are 100+ degrees. High temperatures and high elevations commonly combine to create high density altitude environments challenging aviation operations.***

Fuels, Weather, Topography and Fire Behavior: Fuel conditions on the forest are dominated in the lower elevations and on south facing slopes by chaparral and hardwoods, as single stands or as understory in the conifers. ***Many of these stands have a high dead component because of storm damage.*** Conifers are found in drainages, on north slopes and on all aspects at higher elevations. ***Many of these mid and upper elevation conifer stands have also been damaged by winter storms and mortality from past wildfires and other disturbances.***

Note: ***Refer to the SHF Pocket Card for fire danger history & local factors information, (Attachment 12.7).***

Summertime conditions are influenced by gradient winds that are created when low-pressure systems pass through the area. Northerly winds are most often subsidence driven and can be quite strong, especially in the foothills around Shasta and Trinity Lakes and in drainages that are positioned in a North/South direction. Southwest winds created from frontal passage are especially strong in the flat areas of the eastern forest and at ridge top level throughout the forest. Past experience also indicates that a deep coastal marine layer can result in strong westerly winds in valleys and drainages on the west side of the forest (South Fork Management Unit & Trinity River Management Unit).

Rugged terrain is found in all areas. There is very little gentle ground. Limited access to steep and remote areas combined with heavy fuels can contribute to fires escaping initial attack and create dangerous fire behavior.

Remote Workplaces: A predominate consideration is remoteness and the inherent issues surrounding medical evacuation if required. ***Access and egress challenges exist resulting in a high reliance on aviation assets in what can be an extremely challenging flight environment*** (i.e. poor visibility, multiple incident airspaces, high wind and turbulence, etc.)

Forest Resources: The SHF is the home of one interagency air attack base, one permanent helibase with an IA Type II Helicopter and helitack crew, two Type I Interagency Hotshot Crews, twenty Type III Engines, two dozers, three water tenders, thirteen prevention units and seven Law Enforcement Officers.

- The **Redding Air Attack Base (RAAB) (530-226-2745) (Ramp Frequency 122.675)** located at the Redding Municipal Airport (RDD) supports US Forest Service and Cal Fire fixed wing air attack & airtanker operations. The typical daily aircraft line up at RAAB consists of one OV-10 air attack AA-240, Two S-2 airtankers T-94 and T-95. One King-Air air attack training platform AA-503 (See RAAB information contained in this package).

- The **Trinity Helibase (530-286-2255) (Air to Ground 43 - 167.6000)** is home to the **Shasta-Trinity Helitack Crew.** One Exclusive Use IA Type II helicopter "Helicopter 506" is assigned. The helitack crew staffs the helicopter daily throughout the Mandatory Availability Period, June 1 through October 24th. The helitack crew is a highly mobile, highly motivated resource that has a multiplicity of capabilities to bring to bear to accomplish objectives.

- The **Redding Interagency Command Center (RICC: 530-226-2400 Day/530-226-2499 24hr)** is located in Redding proper. The facility is an Interagency Dispatch Facility supporting both the SHF and SHU.

- The **Northern California Air Group/RAG (National Flight Following/NFF 168.6500 Tone 1 - 110.9)** is located just south of the RAAB. All the following aircraft are housed and dispatched out of NOPS nationally: Three aircraft with the ASM/Leadplanes program (Bravo 50 and Bravo 55, Bravo 53(t), and two Jump aircraft (Jump 42 & Jump 52).

2.0 General Information

2.1 Introduction

- **INTENT**
  - The intent of the Shasta-Trinity National Forest Aviation Management is to promote aviation safety, effectiveness, and efficiency.
- **PURPOSE**
  - To provide information to aviation personnel concerning SHF aviation operations and procedures.
  - To standardize procedures for aviation activities on the Shasta-Trinity N. F.
- **DISCLAIMER**
  - The information contained herein cannot be assumed to be 100% accurate, although every effort has been made to publish correct and current data.
  - ***This guide does not eliminate the need for procedural, operational and safety briefings.***

2.2 Shasta-Trinity National Forest (SHF)

- Largest Forest in Region 5, (2.1 million acres)
- Elevations from 1000 to 14,162 feet MSL
- Many critical waterways
- Made up of four management units:
  - South Fork Management Unit (**SFMU**/Division 2)
  - Trinity River Management Unit (**TRMU**/Division 3)
  - Shasta Lake Management Unit (**SLMU**/Division 5)
  - Shasta McCLoud Management Unit (**SMMU**/Division 7)
- Dispatch Center: Redding Interagency Command Center (**RICC**)

2.3 Shasta-Trinity Unit, CALFIRE (SHU)

- Response areas throughout Shasta and Trinity counties
- Dispatch Center: Redding Interagency Command Center (**RICC**)

2.4 Fuels, Weather & Fire Behavior

- ***FUELS***
  - Multiple fuel models present throughout the **SHF** & **SHU**
  - Grass/Brush model in lower elevations
  - Timber/Slash model in higher elevations
- ***WEATHER***
  - Hot, dry summers.
  - Thunderstorms common May through Fall
  - Local Wx heavily influenced by gradient winds

- **FIRE BEHAVIOR**
  - Major contributors:
    - Steep terrain
    - Local wind factors
    - Low Relative Humidity
    - Heavy dead fuel component
  - Most fires on the SHF are terrain and fuels driven.

Note: ***Refer to the SHF Pocket Card for fire danger history & local factors information, (Attachment 12.7).***

2.5 Area Aviation Resources

- *Refer to Attachment 12.6 - California Air Tactical, Airtanker and Helicopter Dispatch Maps.*

3.0 Shasta-Trinity National Forest Key Contact Information

SHASTA TRINITY NATIONAL FOREST (SHF)
2024 Contact List

Employee Name	Office Phone	Cell Phone	Position	Radio ID
Supervisors Office				
Rachel Birkey	530-226-2522	530-510-3704	Forest Supervisor	FS1
Karri Otto	530-226-2521	530-410-1703	Deputy Forest Supervisor	FS2
Todd Mack	530-226-2527	530-859-2774	FMO	CHIEF 1
Alex Mcbath	530-226-2391	530-526-1320	DFMO-Operations	CHIEF 2
Patrick Bell		661-565-5273	DFMO-Fuels	CHIEF 3
Richard Reposa	530-226-2392	503-956-6995	Workforce Development/Training	DIV-81
			Fire Ecologist	DIV-82
Steven Clark	530-226-2392	530-410-5225	Forest Planner	DIV-83
Natalie Maynard	530-226-2375	530-228-0032	Training Officer	BC-81
(Vacant)			Swing Battalion	BC-82
Sheila Linden	530-226-2397	801-362-0743	Fire Admin	Admin
Safety and Law Enforcement				
Ryan Reginato	N/A	530-551-1729	Safety Officer	Safety 1
Jennifer Linn	530-226-2591	530-409-6902	Patrol Captain	14C1

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Dispatch				
Jason Colby	530-241-9622	530-941-7559	Center Manager	DIV-8
Joni Olson	530-241-9625	530-526-7218	Assistant Center Manager	BC-84
Tom Buckner	530-241-1356	530-598-6392	Assistant Center Manger	BC-85
Aviation				
Ira Graves	N/A	707-327-7554	Unit Aviation Officer	CHIEF 4
Adam Cole Wallace	530-226-2377	530-551-1311	Forest Aviation Officer	DIV-9
Josh Wilson	530-286-2255	530-356-9892	Superintendent H-506	SUP 506
Kelly Mathis	530-226-2796	951-496-6324	Air Tanker Base Manager	BC-91
Dozer Operators				
Cody Camara	530-628-1288	530-410-5542	Dozer Operator	DOZER 29
Jesus Conchas	530-841-4664	818-388-3299	Dozer Operator	DOZER 29
Thomas Graham	530-964-3715	530-355-9508	Dozer Operator	DOZER 79
Josh Hernandez	530-964-3716	530-4141593	Dozer Operator	DOZER 79

South Fork Management Unit / Hayfork RD				
Tara Jones	530-628-1200	530-949-6799	District Ranger	RANGER 2
Randy Jennings	530-628-1240	530-394-8093	DFMO	DIV-2
Mike Anderson	530-352-4031	530-366-6078	ADFMO	BC-11
(Vacant)	530-628-1242	N/A	ADFMO	BC-21
Tristian Dias	530-352-4028	530-598-4171	Trinity IHC Superintendent	SUP-11
Trinity River Management Unit / Weaverville RD				
Tara Jones	530-623-1700	530-949-6799	District Ranger	RANGER 4
Glen Tingley	530-623-1740	530-768-4785	DFMO	DIV-3
Nathan Ulrich	530-623-2121	530-784-3817	DFMO (Fuels)	Fuels-41
Josh Wright	530-623-1881	530-739-2660	ADFMO	BC-31
Cheveyo Munk	530-623-1741	530-570-3880	ADFMO	BC-41
			ADFMO (Fuels)	BC-42
Shasta Lake NRA				
Sara Acridge	530-242-5500	530-806-5520	District Ranger	RANGER 5
Tim Ritchey	530-242-5540	530-524-2781	DFMO	DIV-5
Brandon Dethlefs	530-242-5548	530-261-2566	DFMO (Fuels)	DIV-51
Rob Holt	530-545-5541	530-339-1144	ADFMO	BC-51
Justin Regelin	530-242-5557	530-360-1734	ADFMO (Fuels)	BC-52
Joe Bogdan	530-238-2812	925-980-8529	Shasta Lake IHC Superintendent	SUP-5

Mt Shasta McCloud Management Unit / McCloud RD				
Carolyn Napper	530-926-9620	530-925-1605	District Ranger	RANGER 7
Anna Wright	530-926-9625	530-551-1715	DFMO	DIV-7
Drew Graham	530-926-9641	541-510-3219	ADFMO	BC-61
Josiah Obst	530-964-3741	530-859-3551	ADFMO	BC-71
Brian Murphy	530-964-3770	815-207-3952	DFMO (Fuels)	Fuels-71
Hanne Meyers	530-964-3723	530-710-3491	ADFMO (Fuels)	Fuels-72

Name	Radio Ident	Unit	Assignment	Office Phone	Cell Phone
Redding Interagency Command Center				530-226-2400 530-226-2499 24hr	
Redding Air Attack Base				530-226-2745	
Trinity Helibase				530-286-2255	

4.0 Aircraft Dispatching & Flight Following

4.1 Aircraft Ordering: All requests for aircraft will be ordered through the Redding Interagency Command Center (**RICC**). All flight crews will receive a briefing. Air crews checking in at the Fire Traffic Area will be briefed by the incident aerial supervisor or ground resources.

4.2 Ordering and Dispatching Flights: With the exception of commercial flights, all requests for aircraft will be ordered through **RICC**. **RICC** will notify the FAO or acting of all planned orders. The FAO or designee should assure briefing has occurred with pilot and flight crew.

4.3 Dispatch Information: All aircraft orders will be dispatched utilizing the form FC-106. You can find an example of the FC-106 in Attachment 12.2 and at the following website:

- http://gacc.nifc.gov/oncc/logistics/aviation/docs/12_fc106_interagency_aircraft_dispatch_knee_board_size.pdf

4.4 Filing and Maintaining Flight Plans:

- All flights will either file a flight plan or maintain “Flight Following Procedures”.
- On all administrative flights, a Forest Service Flight Plan will be filed with the Forest Dispatcher.
- Inform **RICC** of any delays (30-minute duration or greater) or major deviations from the prescheduled route.
- At the termination of Forest Service controlled flights, contact will be made either by telephone or radio with the **RICC** to close the flight plan.

4.5 Flight Following Procedures: **RICC** will flight follow aircraft operating on the forest unless another entity has been specifically assigned and has the capabilities to flight follow. On flights that utilize agency flight following, appropriate hand off procedures between flight tracking stations shall occur. For all flights over the forest, follow the procedures found in section **4.6**.

4.6 Methods of Flight Following: Radio check-in/check-out and/or **AFF**. Before changing flight following methods, both flight manager and dispatch must agree. **For mission flights on the SHF, radio check in on the SHF Forest Repeater Net is preferred**. Aircraft radio check-ins on Forest Repeater Net provides adjoining resources, both ground and air, with situational awareness for readiness and airspace deconfliction.

- ***Initiating Flight Following:***
  - Upon aircraft departure the following information should be provided to **RICC**.
    - Aircraft tail number and/or regional identifier
    - Departure & Destination
    - Number of souls on board
    - Amount of fuel (hours/mins)
    - Heading (in degrees)
    - Estimated time enroute (ETE)
    - Confirm positive **AFF**
- ***Radio Check-in:***
  - 15-minute verbal position-check should include the following information.
    - Aircraft status
    - Geographic location or Latitude/Longitude
    - Current heading
- ***Automated Flight Following (AFF):***
  - The aircraft dispatcher at **RICC** will monitor **AFF** at a minimum every 15 minutes during all flights.
- ***Closing out flight following:***
  - When aircraft reach their destination and/or check-in with an incident/aerial supervisor, they shall inform **RICC** via Forest Repeater Net.

4.7 Release or R.O.N. of Aircraft: The Flight Manager or Pilot is responsible for advising RICC of departure times, expected arrival times, and recommends whether an aircraft is to be released or remain overnight (R.O.N.). The process for determining whether an aircraft is to be released or R.O.N will be based on the following criteria:

- Mission needs for the following day.

- Pilot duty day and flight hour considerations.
- Current weather and predicted weather.
- No flights should occur unless they are mission oriented.
- Specific policy requirements.

4.8 **Overdue or Missing Aircraft:** Aircraft are considered "**Overdue"** when it fails to arrive within 30 minutes after the Estimated Time of Arrival (ETA) and cannot be located. An aircraft is considered "**Missing"** when its fuel duration has been exceeded, it has been reported as "**Overdue"** to the FAA and the FAA has completed an administrative search for the aircraft without success. ***If an aircraft is missing, overdue, or downed, initiate the*** **Interagency Mishap Response Guide and Checklist** *by contacting the appropriate Emergency Command Center.*

5.0 Shasta-Trinity Radio User Information

5.1 General: The SHF operates on a single, forest wide radio repeater net with separation between east and west-side repeaters. This means that radio traffic broadcast using an east-side mountain top may not be heard by those on the west-side of the forest, or vice versa.

5.2 Frequency Information and Guidelines: *Refer to the USDA, Forest Service Pacific* Southwest Frequency Guide for additional frequencies approved for use in Region 5.

5.3 Forest Repeater Net: ***The Shasta-Trinity Forest Repeater Net is 171.575 (RX)/165.0125 (TX). This is the primary dispatch and operations frequency. Refer to the SHF Repeater map in this section of the SHF AMOP & Attachment 12.3.***

5.4 SHF Repeater Tones:

SITE NAME	TONE	TONE FREQUENCY	NOTES
Bonanza King	1	110.9 Hz	Covers Trinity Lake/ Coffee Creek Area
Hogback	2	123.0 Hz	East of Shasta Lake/Big Bend
Grizzly Peak	3	131.8 Hz	North of McLoud Arm and South of McLoud Flats
Hayfork Bally	4	136.5 Hz	Big Bar/Junction City/Hayfork Valley
Ironsides	5	146.2 Hz	Burnt Ranch/Denny/New River
Grey Butte	6	156.7 Hz	Mt. Shasta/Eddies/McLoud Flats
Bully Choop	7	167.9 Hz	North Sac Valley/Redding/Hayfork Valley/Wildwood SSE to Tomhead Mt.
Pickett Peak	8	103.5 Hz	South Fork Trinity River/Forest Glenn
Weaver Bally	9	100.0 Hz	Weaverville/Junction City/Canyon Creek
Sugarloaf	10	107.2 Hz	Shasta Lake/Lakehead/Interstate 5 Corridor
Plummer Peak	11	114.8 Hz	Hayfork Valley/Wildwood/Peanut
McFarland	12	127.3 Hz	Harrison Gulch/Wildwood/Platina/Beegum Gorge
Bass	13	141.3 Hz	Shasta Lake City/Shasta Dam/Mountain Gate/Lakehead
Tomhead	14	151.4 Hz	Cottonwood Creek/Platina South to Tomhead
Antelope	15	162.2 Hz	Scott Valley KNF/Excellent for Transition from SHF to KNF & Vice Versa

SHF Service Net: The Shasta-Trinity N.F. Service Net 171.500 (Rx) /164.825 (Tx). This frequency is often used as a "Command" frequency for incidents especially starting the 2nd operational period. ***For incident aircraft dispatches and flight following on the SHF, it is preferred that aircraft utilize the forest net to assist in providing awareness of aircraft responding to tactical personnel on scene.***

5.5

SITE NAME	TONE	Tx TONE FREQUENCY	NOTES
Hayfork Bally	4	136.5 Hz	Big Bar/Sisters/Trinity River Corridor
Grey Butte	6	156.7 Hz	Mt. Shasta/ McCLoud/Eddies
Portable 1	1	110.9 Hz	As requested
Portable 2	12	127.3 Hz	As requested

5.6 SHF Management Unit Nets: Each management unit on the SHF has its own unit frequency assigned. ***Tone 7 must be used to communicate with any base station or ranger unit station on these frequencies. When management units activate lightning plans they will be utilizing these local nets for communications to local communication centers (i.e Weaverville D.O., Coffee Creek Fire Station, etc.)*** The primary use of these frequencies is administrative; however they may be reassigned as incident command or tactical nets.

Management Unit	Rx	Tx	Tx Tone	NOTES
South Fork Mgt. Unit (SFMU)	167.2250	167.2250	7	Hayfork/Harrison Gulch
Trinity River Mgt. Unit (TRMU)	168.9625	168.9625	7	Weaverville/Trinity Lake/Big Bar
Shasta-McCLoud Mgt. Unit (SMMU)	166.9875	166.9875	7	Mt. Shasta/McCLoud
Shasta-Lake Mgt. Unit (SLMU)	167.7250	167.7250	7	Shasta Lake/I 5 Corridor

5.7 Shasta-Trinity I.A. Tactical Frequencies: Tactical frequencies are assigned to allow incident on-scene radio communications. Tactical frequencies are used for on the ground communications on an incident between the assigned resources. **RICC** will manage and assign Tactical frequencies. The following Tactical frequencies are assigned as I.A. frequencies.

- R5 Tac-4 / 166.5500
- R5 Tac-5 / 167.1125
- R5 Tac 7 / 167.9625

5.8 **Air to Ground Communications:** The SHF has 2 pre-assigned Air to Ground frequencies. Region 5 has 8 pre-assigned air to ground frequencies. ***The pre-assigned Shasta-Trinity N.F. Frequencies are Primary: Air to Ground 43 (167.6000 Rx & Tx) and Secondary: Air to Ground 08 (166.8750 Rx & Tx).*** Request for the secondary or additional frequencies will be made through **RICC**. See ***Region 5 Smoke Jumper Frequency Guide***.

Note: Cal Fire Air to Ground (s) is tone protected using Tone 192.8 (Tone 16) **on both Receive & Transmit.**

CDF A/G 1	151.2200	192.8 (Tn 16) Rx	151.2200	192.8 (Tn 16) Tx
CDF A/G 2	159.2625	192.8 (Tn 16) Rx	159.2625	192.8 (Tn 16) Tx
CDF A/G 3	159.3675	192.8 (Tn 16) Rx	159.3675	192.8 (Tn 16) Tx

5.9 **Air to Air Communications:** Communication between all airborne incident aircraft is critical to safety and effectiveness. ***California typically uses a VHF-FM frequency, "Air Tactics", for primary air to air communications.*** All forests and Cal Fire units in Region 5 have pre-assigned VHF-FM air to air frequencies. ***The Shasta-Trinity N.F. Primary is Air Tactics 64 (168.6875 Rx & Tx) and Secondary Air Tactics 43 (167.7000 Rx & Tx).*** These frequencies are narrow banded and have no tone protection. See attachment for Region 5 Initial Attack Air-to-Ground and FM Air Tactics Frequency Allocations.

Note: Cal Fire Air to Air frequencies (Air Tactics 4, 5, 6, 21, 22, 23 and 24) are tone protected using 110.9. (tone 1) on both Rx and Tx.

VHF-AM air to air frequencies for Initial Attack are assigned to geographical areas throughout the region. ***See Region 5 Smokejumper Frequency guide for locations of pre-assigned VHF-AM frequencies. The Shasta-Trinity N.F. VHF-AM Primary is 118.950 with the Secondary being 128.275. If the secondary frequency is needed, request it through RICC.***

For aircraft requesting clearance into the Fire Traffic Area (FTA), communications should be established on the assigned primary FM air to air frequency. The controlling aircraft or Aerial Supervisor may assign the secondary air to air as needed. It is common for rotor wing assets to utilize VHF-AM frequencies for air-to-air communications. ***It is important that all incident aircraft monitor assigned air to air frequencies and adhere to FTA guidelines.***

Note: Cal Fire aviation assets utilize VHF-AM frequency 122.925 in addition to the assigned primary and secondary air to air frequencies as a backup. It is highly monitor 122.925 and it is highly recommended for aviation resources to monitor 122.925.

5.10 **Air Guard:** ***168.6250 MHz (Tx 110.9)*** The Air Guard frequency for government aircraft will be used for emergency aviation communications. ***Continuous monitoring of this frequency in narrowband mode is mandatory by Federal agency dispatch centers and aircraft.***

Air Guard is restricted to the following utilization:

- Air-to-air emergency contact and coordination.
- Ground-to-air emergency contact.
- Air Guard Channel is not available for tactical frequency or use.

5.11 **National Flight Following: 168.6500 Mhz. (Rx 110.9 Tx 110.9).** This frequency is used for flight following of aircraft and is not intended for tactical communications or incident operations. All federal dispatch centers monitor national flight following.

National Flight Following frequency is restricted to the following utilization:

- Flight following, dispatching and/or re-direction of aircraft.
- Administrative travel communications, not tactical.

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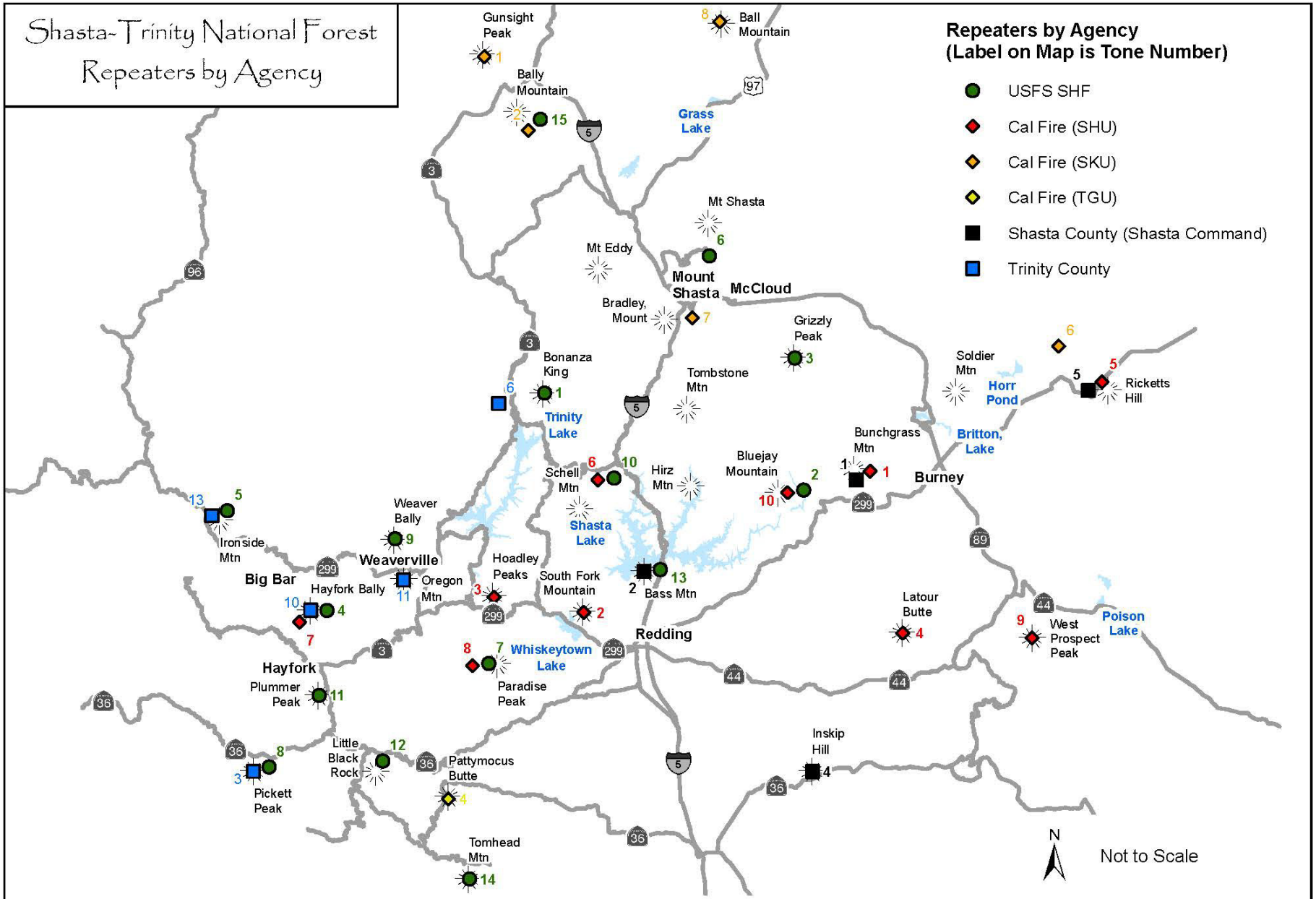


Disclaimer: The Forest Service uses the most current and complete data available. GIS data and product accuracy may vary. Data may be: developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation, incomplete while being created or revised. Using GIS products for purposes other than those for which they were created, may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace, GIS products without notification.

Note: Repeater symbols are dispersed in some areas for cartographic purposes. Locations are approximate.

REDDING AIR ATTACK BASE

6101 Airport Rd
Redding, CA 96002
(530) 226-2745-Forest Service
(530) 226-2795- CAL FIRE
(530) 224-2433 – fax
Air Tanker Base Manager- Kelly Mathis (951) 496-6324
CAL FIRE Battalion Chief- Tim Shiffer (530) 448-2404

6.0 AIR ATTACK BASE INFORMATION: The Redding Air Attack Base (RAAB) is located at the Redding Municipal Airport. It is an interagency base at the north end of the airport, adjacent to the Regional Air Group (RAG) hangar and Northern Operations Center (NOPS). Also located within the area is the Redding Smokejumper base, and the Shasta Trinity N.F. Headquarters.

RAAB has five air tanker parking pits; All of the 5 pits are capable of simultaneous loading. There is also a light aircraft parking area at RAAB. Parking access could be limited in 2024 as a result of ongoing construction at RAAB and the NOPS hangar. Overflow aircraft parking can be accommodated with the RAG. Two helicopter pads are located north of the base and can accommodate Type II helicopters.

Note: Redding Air Attack Base is undergoing a multi-phased modernization project throughout the 2024 fire season. Check for most recent NOTAM's regarding ramp construction activities that might impact flight operations into RAAB.

6.1 AIR BASE COMMUNICATIONS: Communications with RAAB take place on the ***National Ramp Frequency* – 122.675.** This frequency is used when calling rolling/chock times, fuel requests. Prior to entering the airport air space and sterile cockpit notify RAAB on ramp frequency. ***"Redding Air Attack Base"*** *and/*or ***"Ramp"*** are the designators for communications with RAAB personnel.

6.2 AIRCRAFT DISPATCHING: Aircraft request(s) will be transmitted via the intercom system (IC-3) through NOPS. Dispatches will be received by RAAB tower operations and given to the pilots on a standard form FC 106 containing incident name, geographical location, latitude and longitude (Degrees, Decimal Minutes), bearing and distance, closest reload base, other aircraft, and known hazards. All requests (i.e. aircraft, additional frequencies, TFR, etc.) will be communicated to the responsible agency's dispatch center.

6.3 RAMP OPERATIONS: RAAB is a controlled ramp. After exiting the active taxiway, and clear of RDD Ground Control, prior to entering the ramp area all aircraft need to be in contact with ramp personnel on **122.675.** Prior to aircraft initial startup procedures and aircraft exiting the ramp area, contact ramp personnel on **122.675**. Parking and fueling operations will be conducted at the direction of ramp personnel

and in areas designated by personnel for such purposes. Aircraft times will be recorded by the Timekeeper (ATIM).

6.4 RETARDANT INFORMATION: RAAB is a full-service base dispensing Phos-Check MVP-Fx Retardant. Mixed weight is 8.79 lbs. per gallon. Water can also be loaded, with prior notice. The ICL Retardant Contract Require Delivery Period (RDP) is June 1st through Oct 31st. A call up for retardant delivery outside the RDP can be authorized by the contracting officer if needed.

6.5 BRIEFING: Pilot and aircraft briefings will be held at 1100 hours for federal assets and for CAL FIRE assets. Briefing will take place in the downstairs dining area. Upon arrival at RAAB, a briefing will be provided with available information.

6.6 HOT LOADING: Hot Loading is approved at the base for aircraft pre-designated to receive hot loading. Every pilot will receive an annual hot loading briefing.

6.7 REDDING AIRPORT INFORMATION: RDD is a full-service airport providing commercial airline passenger service, aviation-related services, and aircraft hangar facilities. It has two runways; one primary runway for all aircraft (16/34), and one alternate runway (12/30) for light aircraft and general aviation. The primary runways, 16 and 34, are 7003' x 150' and runways 12 and 30 are 5062' x 150'. Redding Tower can be contacted via phone at (530) 224-4320 or on **119.8** for Tower and **121.7** for Ground.

6.8 FACILITIES: RAAB is equipped with a kitchen, dining area, pilot rest area, TV/lounge area and shower/restrooms. Wireless Internet is also available along with computer kiosks for both federal and state systems.

6.9 HOTELS/ RESTAURANTS: There are several hotels and restaurants nearby. A list is available in the dispatch area and downstairs next to the RAAB Captains' offices.

6.10 SECURITY: RAAB is located within a Federal Aviation Administration (FAA) facility. All security measures are enforced according to the US Department of Agriculture and FAA policies. There is a locked gate leading to the aircraft area. All entrances to the building are accessed by code-controlled doors. A temporary code may be requested. Identification is to be readily available at all times and visible during heightened security levels.

6.11 Redding Air Attack Base Layout Images (2024)

TRINITY HELIBASE

3325 Pettijohn Road
Lewiston, CA 96052
(530) 286-2255 – Helibase Office
(530) 286-2256 – Fax
Helitack Superintendent – Josh Wilson Office (530)286-2251/ Cell (530)356-9892
Helitack Captain – Ian Svendsen: (406)925-2095
TRMU DFMO (SHF Division 3) - Glen Tingley: Office (530) 623-1740/Cell (530) 768-4785
TRMU ADFMO (SHF Battalion 41) – Cheveyo Munk: Office 530-623-1741

7.0 TRINITY HELIBASE INFORMATION: Located on the Trinity River Management Unit (TRMU) of the Shasta-Trinity National Forest, Trinity Helibase (THB) is located at the top of Pettijohn Mountain, (N 40° 47.240' x W 122° 48.260'; elevation 3250' MSL), 2.5 miles West of Trinity Dam. THB is 29 nm from RDD Bearing 305°, and 6 nm from Weaverville Airport Bearing 065°. Just north of the Helibase is the CAL FIRE/CDC Trinity River Conservation Camp. Local topographic features include mountains rising to over 9000' MSL to the west.
Contact the local DFMO or ADFMO for a local briefing & access to the Helibase in the absence of the Helitack Crew.

7.1 HELIBASE RADIO COMMUNICATIONS: Communications with THB primarily take place on VHF FM frequencies**.** For long range communications utilize **SHF Repeat – Rx 171.5750 / Tx 165.0125 Tone 7 (167.9).** For short range communication/take off & landing, utilize **Air to Ground 43 – Rx/Tx 167.6000**.

7.2 AIRCRAFT DISPATCHING: *The call sign for* **RICC** *(USFS and/or CAL FIRE) Is* ***"Redding"****.*

Note: *All emergency traffic from* **RICC** *is preceded by three "****Beeps****" on* ***SHF Repeat.***

All aircraft request(s) from **RICC** will be transmitted on **SHF Repeat – Rx 171.5750/ Tx 165.0125 Tone 7.** The standard form **FC 106**, (containing incident name, geographical location, latitude and longitude [Degrees, Decimal Minutes], bearing and distance, closest reload base, other aircraft, and known hazards), is utilized to communicate incident information pertinent to aviation resources in Region 5. FC-106 will come through fax machine if at Trinity Helibase.

If dispatched to a CAL FIRE incident, establish flight following with *"****Redding****"* on **SHF Repeat** then switch to **CAL FIRE "SHU LOCAL" – Rx 151.1600 Tx 159.2700** and/or the assigned CAL FIRE command frequency.

7.3 APPROACH & DEPARTURE: Approach and depart Trinity Helibase at your discretion according to wind and atmospheric conditions. Prevailing winds during the summer months are out of the east. There is a large orange windsock south of PAD 2, (see Map). Be advised that terrain rises sharply approximately 1/4 mile to the west/southwest of the helibase. ***Do not overfly any structures at Trinity Helibase or the Trinity River Conservation Camp to the North, (see Map).***

7.4 DECK OPERATIONS: Trinity Helibase has two established helipads that are rated for Type II helicopters, (the upper helipad is capable of accommodating some Type I Helicopters with a moderate footprint such as the S-61). Check in with helibase personnel when arriving at the helibase, (or with the local DFMO or ADFMO in the absence of helibase personnel). Fire extinguishers and crash rescue kits are located at the east corners of each pad. Ensure all approach and departure paths are clear when helicopters are inbound or outbound. There is a Helibase Information Board at the bottom of the steps to PAD 1, (north Pad). Fuel truck parking is in a turnabout above PAD 2, (see Map).

7.5 DIPSITE INFORMATION: In Progress (utilize best practices and contact RICC with Lat/Long data of intended dipsite for approval if unsure)

7.6 FACILITIES: Trinity Helibase is equipped with a kitchen, dining area, pilot rest area, training room, operations/radio room, shower/restrooms and outdoor exercise facilities. Internet access is available for Federal computer systems.

7.7 DRIVING DIRECTIONS: From Redding: Drive 28 miles West on Highway 299, take a right at turnoff for Lewiston/Trinity Dam, drive 13 miles on Trinity Dam Boulevard, turn left at the sign for Trinity Helitack Base/California Conservation Camp (Pettijohn Road), drive 3 miles, take left at the fork in the road.

7.8 HOTELS/RESTAURANTS: There are several hotels and restaurants in Lewiston and Weaverville. Refer to the THB Operations Guide, (Local Services Section), for more information.

Area Lodging:	Lewiston Valley Motel	(530) 778-3942
	Weaverville Victorian Inn	(530) 623-4432
	Weaverville Hotel	(530) 623-2222
	49er Motel (Weaverville)	(530) 623-4937

7.9 SECURITY: Trinity Helibase is located in a remote area of the forest near Trinity Dam. The helibase has no exterior security fence & the road gates typically remain open to the public from May – September. Public access to the helibase driveway up to the fuel truck parking area should be monitored & non-agency personnel contacted for safety & security. All exterior doors to main building and outbuildings will be locked when no agency personnel are present. The Trinity River Conservation Camp, neighboring property to the North, typically houses up to 90 California Department of Corrections (CDC) inmates, (5 CALFIRE handcrews). This compound is not fenced & personnel at Trinity Helibase should take the appropriate precautions for security, (secure all vehicles at the helibase), do not wander into CDC compound without checking in with Officers at their main office, report any suspicious activity to the CDC Officers at (530) 286-2880 or the Trinity County Sheriff's Office (530) 623-2611).

7.10 TRINITY HELIBASE MAP:

7.11 SHF Helispot & Helibase Locations:

2017 SHASTA TRINITY N. F. HELISPOT LIST							
	DISTRICT	STAGING AREA	LATITUDE **W**	LONGITUDE **N**	ELEV.	CAPACITY	VEHICLE ACCESS
1	BIG BAR	Big Bar	40°44.40	123°15.40	1080	1 Type 2	Yes
2	BIG BAR	Blue Ridge	40°54.04	123°09.60	3250	1 Type 2	4x4
3	BIG BAR	Denny	40°56.78	123°23.08	1500	1 Type 2	Yes
4	BIG BAR	Mary Blaine	41°05.34	123°15.29	6500	4 Type 2	No
5	BIG BAR	Sky ranch	40°43.36	123°02.88	1460	4 Type 2	Yes
6	BIG BAR	Upper Waldorf	40°49.07	123°15.56	4000	2 Type 2	No
7	BIG BAR	Helena	40°46.46	123°07.70	3000	4 Type 2	Yes
8	BIG BAR	Lime Point	40°45.58	123°05.78	1500	2 Type 2	Yes
9	BIG BAR	Big Flat	41°04.63	122°56.48	5000	3 Type 2	Yes
10	BIG BAR	Burnt Ranch Mill	40°48.40	123°28.45	1500	1 Type 2	Yes
11	BIG BAR	Hayfork Bally	40°41.31	123°14.64	4000	1 Type 3	4x4
12	HAYFORK	Hayfork Airport	40°32.70	123°11.00	2500	10 Type 2	Yes
13	HAYFORK	Hyampom Airport	40°37.58	123°28.12	1500	8 Type 2	Yes
14	MCCLOUD	Ash Creek	41°15.07	121°57.02	4000	1 Type 2	Yes
15	MCCLOUD	Elk Flat	41°22.04	121°58.05	4000	4 Type 2	Yes
16	MCCLOUD	Friday Retreat	41°10.55	122°08.00	3500	2 Type 2	Yes
17	MCCLOUD	Bunny Flat	41°21.69	122°12.80	8500	1 Type 2	Yes
18	MCCLOUD	New Ski Park	41°19.24	122°12.15	5500	8 Type 2	Yes
19	MT. SHASTA	Mott Airport	41°16.20	122°16.50	3500	8 Type 2	Yes
20	SHASTA LAKE	Big Bend	41°01.30	121°53.30	2000	2 Type 2	Yes
21	SHASTA LAKE	Jones Valley	40°44.32	122°13.00	1500	2 Type 2	Yes
22	SHASTA LAKE	Mountaingate	40°42.33	122°20.44	1000	8 Type 2	Yes
23	WEAVERVILLE	Trinity Helibase	40°47.24	122°49.00	3500	2 Type 2	Yes
24	WEAVERVILLE	Coffee Creek	41°05.22	122°42.46	2500	1 Type 2	Yes
25	WEAVERVILLE	Trinity Center	40°58.74	122°41.59	2400	4 Type 2	Yes
26	YOLLA BOLLA	Harrison Gulch	40°23.00	122°58.90	3000	1 Type 2	Yes
27	YOLLA BOLLA	Pine Root	40°18.60	123°05.60	4500	1 Type 2	Yes
28	YOLLA BOLLA	Pony Buck	40°16.00	123°02.20	5500	1 Type 2	Yes
29	YOLLA BOLLA	Deerlick	40°26.53	122°55.80	3500	1 Type 2	4x4
30	YOLLA BOLLA	Texas Chow	40°15.74	123°05.90	3900	1 Type 2	4x4

REGIONAL AIR GROUP

6101 AIRPORT RD.
REDDING, CA 96002
(530) 226-8010
Fixed Wing Operation Specialist – John Casey (530) 727-7045

8.0 Northern Region Air Group: The Northern Region Air Group (RAG) hangar is located just south of RAAB. The RAG provides fire and general aviation services to the Northern Region of USDA Forest Service Region 5. Due to the unique capabilities within the RAG, personnel and aircraft are often assigned to various other regions and entities.

8.1 Aerial Supervision: The RAG fields 3 Beechcraft King Air, all of which are configured for ASM and Lead Plane missions. The RAG also supplies the pilots for the C-23 Sherpa utilized by the Redding Smokejumpers.

8.2 Infrared/ Mapping: Place orders through RICC and North Ops.

8.3 Initial/Extended Attack: The Region 5 Smokejumper Program consists of 40 Smokejumpers supported by two aircraft and provides an invaluable blend of experience, rapid response, and self-sufficiency. Throughout the summer, Smokejumper aircraft will be prepositioned at satellite bases throughout California to increase initia attack capability (Fresno, Porterville, San Bernardino).

9.0 Safety & Emergency Procedures:

A critical element of every fire management activity is to connect injured employees with effective medical care to sustain life and prevent serious or de-habilitating injury.

9.1 Hazards: Some common hazards found in the work environment.

- Poison Oak
- Insect stings and bites
- Steep slopes
- Mountain roads
- Fire behavior
- Snags
- Hostile field work environment

9.2 Aviation Hazards: Some common aviation hazards.

- General aviation corridors with multiple airports
- Congested incident airspace
- Incident aircraft operating near jurisdictional boundaries
- High density altitudes
- Poor visibility due to inversion or multiple ignition events
- Thunderstorm downdrafts
- Mountain wave turbulence
- Wire hazards
- Confined helicopter dip-sites and landing zones

9.3 SHF Emergency Response Plan Guide:

Health, Safety, and Wellness - Emergency Response Plan (sharepoint.com)

9.4 Helicopter Extraction Source List:

https://www.nwcg.gov/publications/512

9.5 SHF Aviation Hazard Maps:

https://ftp.wildfire.gov/public/incident_specific_data/calif_n/z_Aviation/SHF_ShastaTrinity/Shasta/AviationHazard_SHF_Overview.pdf

10.0 Air Space Coordination

10.1 Fire Traffic Area: The Fire Traffic Area (FTA) will be used by all tactical aircraft. The RICC will be the initial point of contact for aviation resources approaching and departing the FTA when no aerial supervision is in place. If aerial supervision is not on scene, first responding aircraft must establish control of the FTA until aerial supervision arrives.

- **Aerial supervision on scene:**
    1. Give 12-mile radio call to aerial supervisor. Give your location and altitude.
    2. Obtain clearance into the FTA.
    3. Enter the incident airspace as briefed.
- **Aerial supervision is not on scene, other aircraft are:**
    1. Give 12-mile call in the blind on the assigned air to air frequencies. Give your location, altitude, and intentions.
    2. Obtain clearance into the FTA.
    3. Enter the incident airspace as briefed.
    4. If no clearance is obtained inbound aircraft will remain outside the NOCOM ring until a clearance is received and understood.
- **No aircraft on scene:**
    1. Give 12-mile call in the blind on the assigned air to air frequencies. Give your location, altitude, and intentions.
    2. Contact IC on Air to Ground and verify no other aircraft on scene.
    3. Proceed to the seven-mile ring and repeat blind call. Stay at least 2,500' AGL and watch for other aircraft.
    4. If no clearance is obtained inbound aircraft will remain outside the NOCOM ring until a clearance is received and understood.
    5. Get center point and record size up information.
    6. Call RICC and notify you have assumed aerial supervision and provide size up.
    7. Call the IC/ground forces and establish objectives and priorities.

10.2 Cal Fire Information: Differences in air space management techniques and expectations exist between the Federal Agencies and Cal Fire. The following talking points are intended to give clear intent to aerial supervision personnel regarding different procedures for interacting with Cal Fire air tankers and federal air tankers. While these inconsistencies are subtle, they are important for safe and effective operations.

1. When clearing a Cal Fire air tanker to maneuver the aerial supervisor should acknowledge all legs of the pattern while in maneuvering altitude. For example, when a Cal Fire Tanker is cleared to maneuver. The Air tanker will call his downwind leg. The aerial supervisor should if possible, have a visual of the tanker and confirm the flight leg with a radio transmission indicating "Tanker XX on downwind" repeat sequence throughout the flight legs. When the airtanker is on final he/she will call Tanker XX on final. The aerial supervisor should acknowledge the flight leg and if appropriate clear the tanker to drop.

2. **VHF-AM 122.925**

VHF-AM 122.925 MHz- Backup air-to-air frequency. Also used by air attack bases for local communications with inbound, outbound, and reloading aircraft. Assigned for use by all natural resource protection agencies. This frequency has become the known contact frequency for use by news media, EMS, etc. All inbound aircraft to a new incident will monitor the assigned Air to Air FM and AM frequencies in addition aircraft should monitor **122.925**. Cal Fire aircraft will make an initial blind call on the assigned Air to Air FM Airtactics frequency if no contact is made, they will repeat this procedure at the seven-mile ring. At this point if no contact is made, it is assumed they are the first aircraft on scene and proceed into the FTA with caution. Unless otherwise specified aircraft should monitor back up Air to Air AM **122.925**.

3. Cal Fire flight time limitations are as follows: A pilot of a single-pilot aircraft is limited to seven hours of flight time in one duty day. Pilots of aircraft with a required co-pilot (Second in Command) are limited to eight hours of flight time in one duty day. An aircraft in which one pilot is training another pilot is classed as a single pilot aircraft and is limited to seven hours of flight time in one duty day.

4. Cal Fire incidents may utilize an Air Tactics frequency for Air to Ground communications with the Incident Commander's approval.

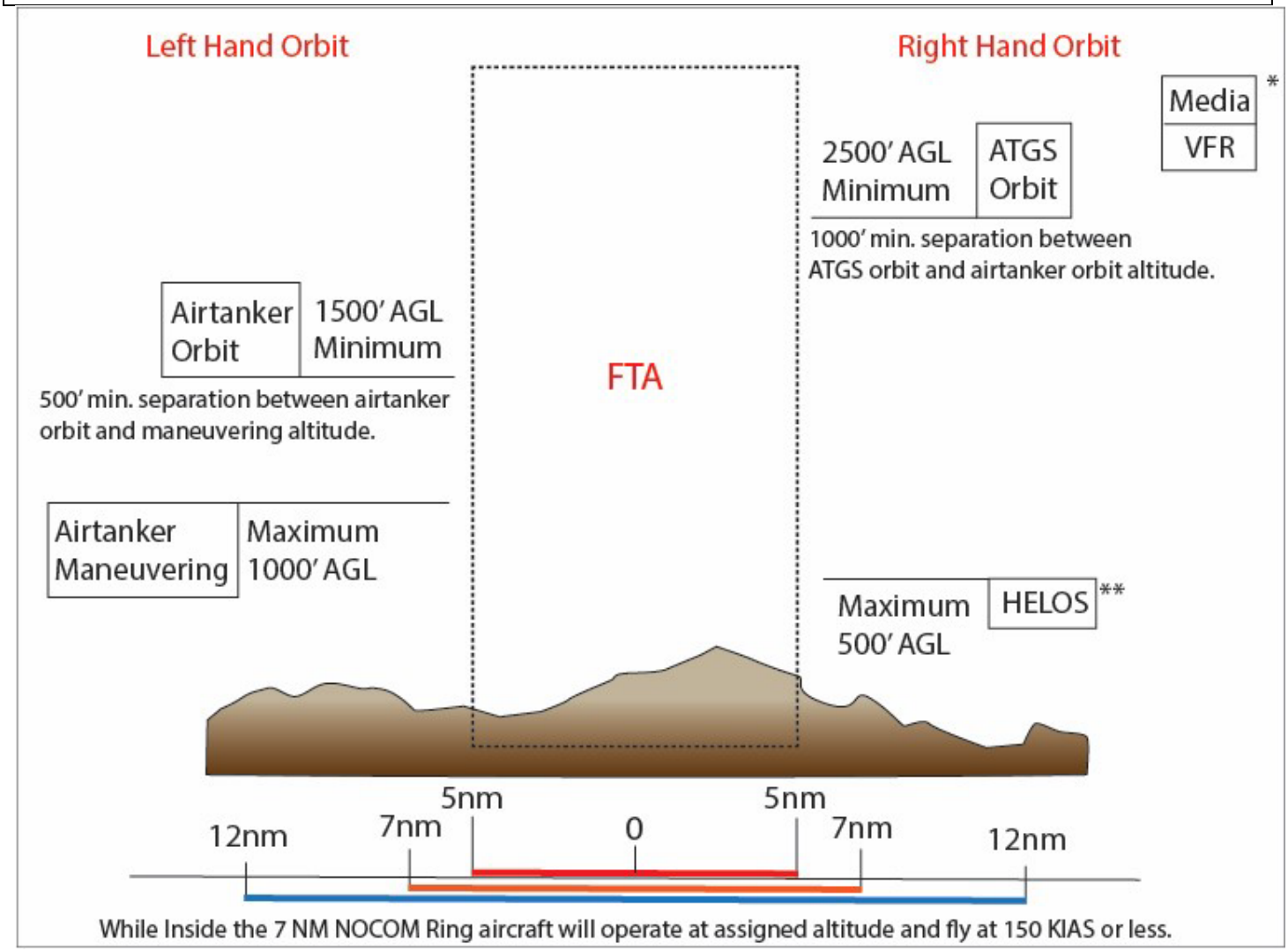
5. Cal Fire utilizes tone protection on CDF AIR TACTICS 4, 5, 6, 21, 22, 23 and 24 are tone protected with Tone 110.9 on both transmit and receive.

NWCG Fire Traffic Area (FTA)

***NWCG Standards for Aerial Supervision*,**
PMS 505, https://www.nwcg.gov/publications/505
Clearance is required to enter the FTA

Initial Radio Contact: 12 nm on assigned air tactical frequency. No Radio Contact: Hold a minimum of 7 nm from the incident.

Note: Airtanker maneuvering altitude determines minimum airtanker and ATGS orbit altitudes. Assigned altitudes may be higher and will be stated as MSL.



* Media and IAA Aircraft: Maintain VFR separation above highest incident aircraft or at the altitude assigned by the controlling aircraft. ** Helicopters: Fly assigned altitudes, orbits, and routes.			
Airtanker Base As Assigned	Air Guard 168.625 Tx Tone 110.9	Air to Air As Assigned	National Flight Following 168.650 Tone 110.9 TX and RX

Incident Airspace Reminders

An interagency airspace management tool containing an established communication protocol. The FTA is a section of airspace with a five nautical mile (NM) radius from the center point of an incident during fire suppression operations. Responding resources shall arrive on scene using the following procedures based on resource type.

- ATGS Orbit Altitude: 2,500 Above Ground Level (AGL), expressed using MSL, Right Hand Orbit.
- Airtanker and Water Scooper Orbit Altitude: 1,500 feet AGL, expressed using MSL, Left Hand Orbit.
- Airtanker Maneuvering Altitude: Ceiling of 1,000 feet AGL, expressed in MSL, Left Hand Orbit.
- Helicopter Orbit Altitude: Ceiling of 500 feet AGL, expressed in MSL, Assigned Left- or Right-Hand Orbit.

Approach procedures include:

- Initial Communication Ring (ICOM) – A ring 12 nm from the center point of the incident. At or prior to 12 nm, inbound aircraft contact the ATGS or appropriate aerial resource for permission to proceed to the incident.
- No Communication Ring (NOCOM) – A ring 7 nm from the center point of the incident that should not be crossed by inbound aircraft without first receiving clearance from the appropriate on-scene incident aircraft. While within the NOCOM ring aircraft will operate at established/assigned altitudes and remain at 150 KIAS or less.

Temporary Flight Restriction (TFR)

NWCG Standards for Airspace Coordination, PMS 520, https://www.nwcg.gov/publications/520

All assigned/ordered aircraft must obtain clearance into the incident TFR by the on scene aerial supervisor or the official in charge of the on-scene emergency response activities. A resource order (IROC) or *NWCG Aircraft Dispatch Form*, PMS 250, is not a clearance to enter a TFR.
Responding aircraft must have reasonable assurance that there are no other aircraft in the TFR by making blind calls on the TFR frequency, other assigned air-to-air frequencies, and double checking with ground personnel (Incident Commander, Operations, or Helibase) before entering a TFR.
There may be multiple aircraft operations areas within a TFR.

Remember: Non-Incident aircraft may enter the TFR under the following conditions:

- The aircraft is carrying a law enforcement official.
- The aircraft is on a flight plan and carrying properly accredited news representatives.
- The aircraft is operating under the ATC approved IFR flight plan.

- The operation is conducted directly to or from an airport within the area or is necessitated by the impracticability of VFR flight above or around the area due to weather, or terrain; notification is given to the Flight Service Station (FSS) or ATC facility specified in the NOTAM to receive advisories concerning disaster relief aircraft operations; and the operation does not hamper or endanger relief activities and is not conducted for observing the disaster.

11.0 Aerial Delivered Chemical Information:

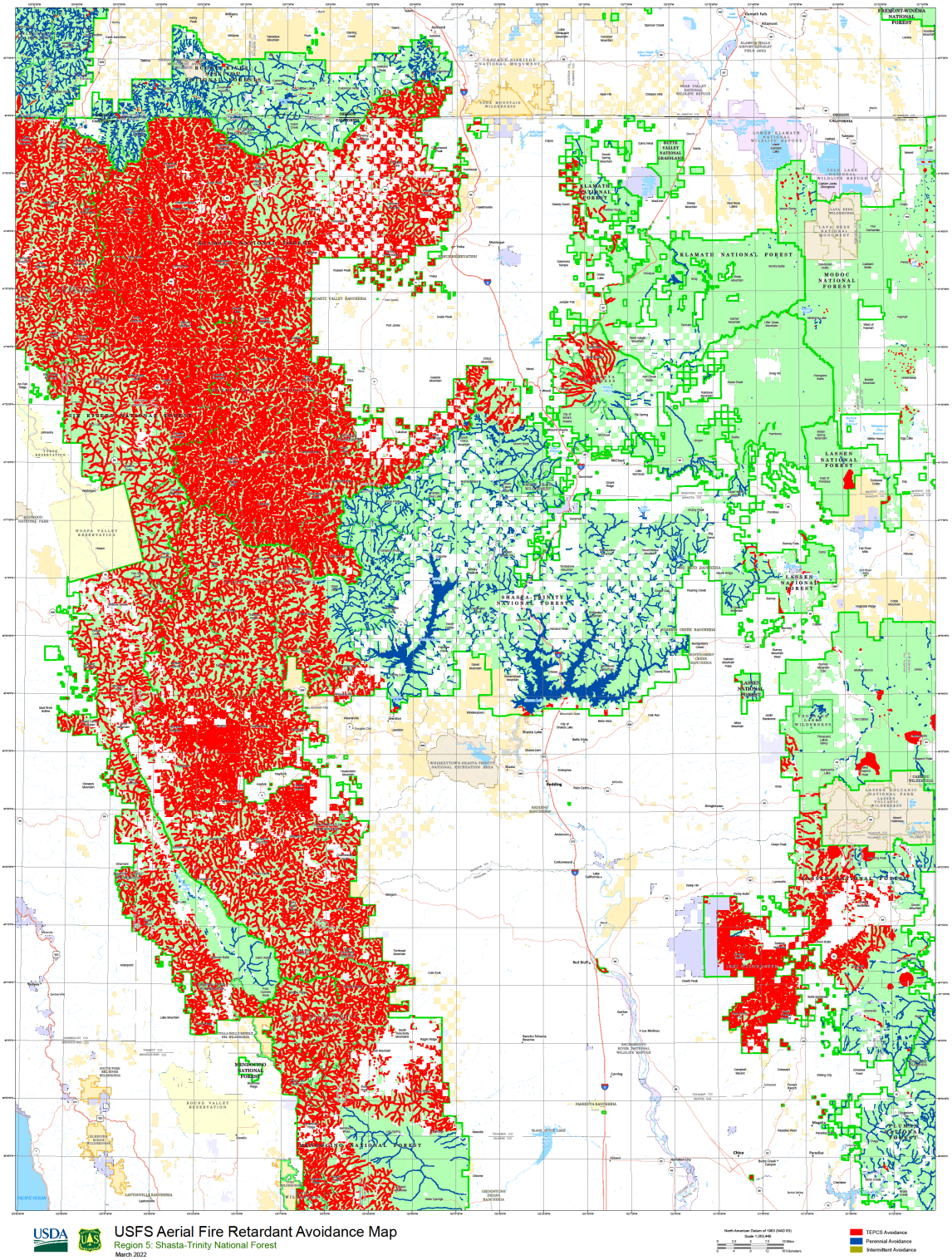
11.1 SHF Jettison Areas:

MAP	LATITUDE	LONGITUDE	BEARING RDD	DISTANCE RDD	JETTISON NAME	NOTES
1	40° 07.987 N	122° 47.236 W	210	32 nm	Tomhead Mtn.	Avoid North slopes
2	40° 12.433 N	122° 51.435 W	220	31 nm	Wells Creek Peak	Avoid North slopes
3	40° 26.283 N	122° 55.294 W	260	29 nm	Knob Peak	MTR 2 Miles East Drop on Ridge East of Lookout
4	40° 44.858 N	122° 33.229 W	305	19 nm	Mammoth Butte	Avoid Streams
5	40° 53. 515 N	122° 28.554 W	324	25 nm	Dog Creek Mtn.	None
6	40° 53.200 N	122° 10.953 W	356	24 nm	Salt Creek Mtn.	Avoid Limestone Outcroppings
7	40° 34.778 N	122° 05.552 W	046	10 nm	Cal Fire Buckhorn	Power lines to West and South
8	40° 31.379 N	122° 17.823 W			EMERGENCY JETTISON Redding Air Attack Base	EMERGENCY JETTISON ONLY

DATUM WGS 84 3/7/2016

Bearing and Distance from RDD/RAAB

11.2 Reta rdant Avoidance Maps (2022) 0514_Shasta-Trinity National Forest.pdf (wildfire.gov)



11.3 Retardant Tracking Sheet

DATE	INCIDENT NAME	UNIT/ FOREST	LATITUDE	LONGITUDE	WITHIN AVOIDANCE AREA	NOTIFICATION MADE	NUMBER/ LOADS	NOTES

12.0 Attachments

12.1 Aircrew Orientation Briefing Checklist

____ Leader's intent ***(Sec. 1.0)***

____ Local Frequencies and use ***(Sec. 5.0, Attachment 12.5 & R5 Frequency Information Cards)***

____ Key Contacts ***(Sec. 3.0, 6.0, 7.0 & 9.0)***

____ Redding Sunrise/Sunset chart ***(Attachment 12.9)***

____ Local Airport information ***(Attachment 12.10)***

____ Local Lodging ***(Sec. 6.0 and 7.0)***

____ Local water sources ***(Refer to FAO or Local Division/Battalion Chiefs)***

____ Helispots ***(Sec. 7.11)***

____ Maps depicting MTRs and Special Use Airspace ***(Attachment 12.7)***

____ IA size up card ***(Refer to Aircraft Initial Fire SizeUp Card)***

____ Local Medical Evacuation information ***(Refer to SHF Emergency Response Plan)***

____ Local hazards ***(Sec. 9.0)***

____ Airport crash rescue procedures ***(Refer to IABOG, IHOG & Local Airport Procedures)***

____ Map and description of jettison areas ***(Sec. 11.1 & Attachment 12.7)***

____ Local flight following procedures ***(Sec. 4.5)***

____ Aviation Operations Plan ***(Sec. 3.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.2)***

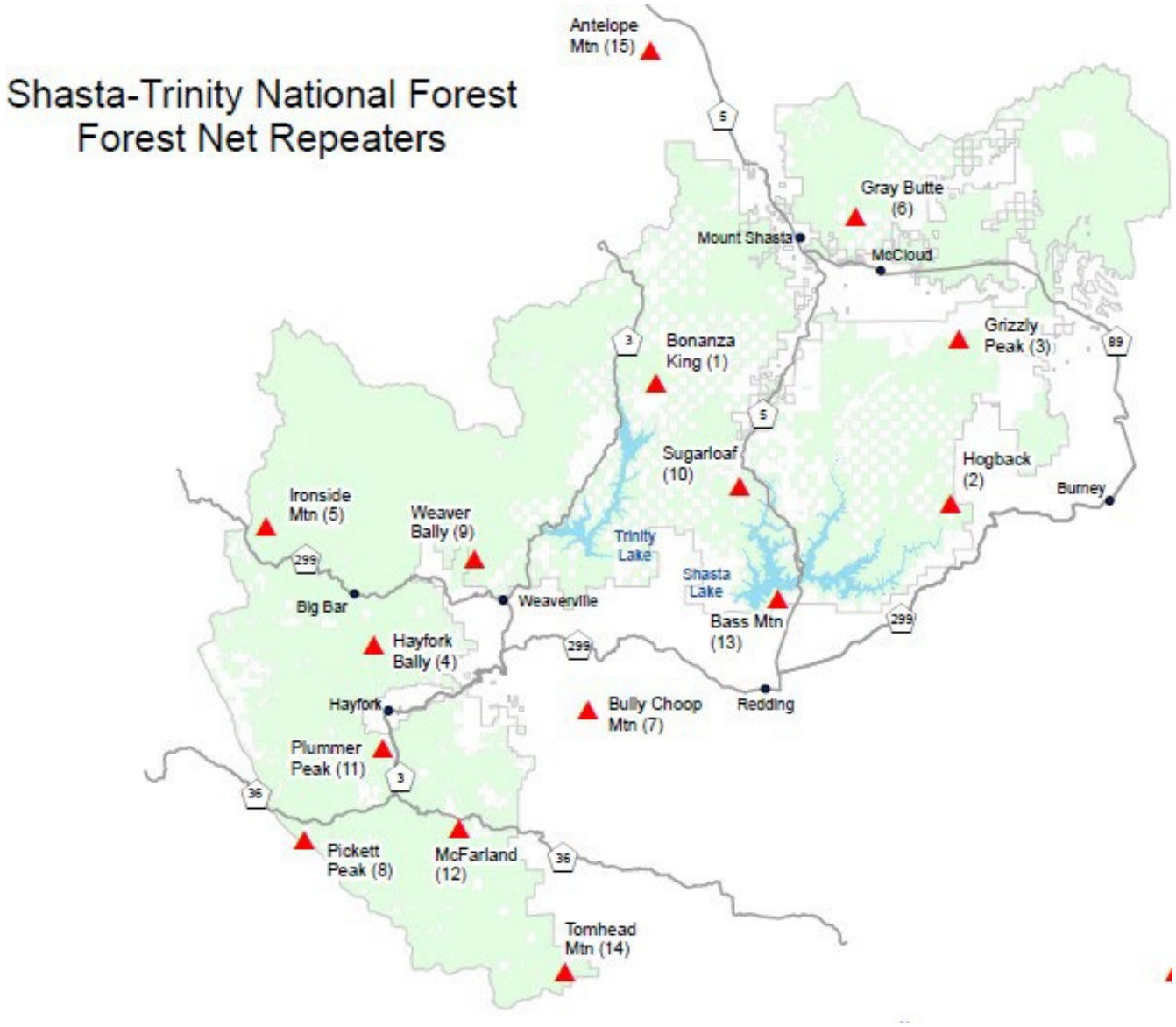
____ Special Considerations ***(Sec. 3.0, 8.0, 9.0, 10.0, 11.7)***

____ Shasta-Trinity National Forest Pocket Card ***(Attachment 12.8)***

12.2 Standard Dispatch Form FC-106

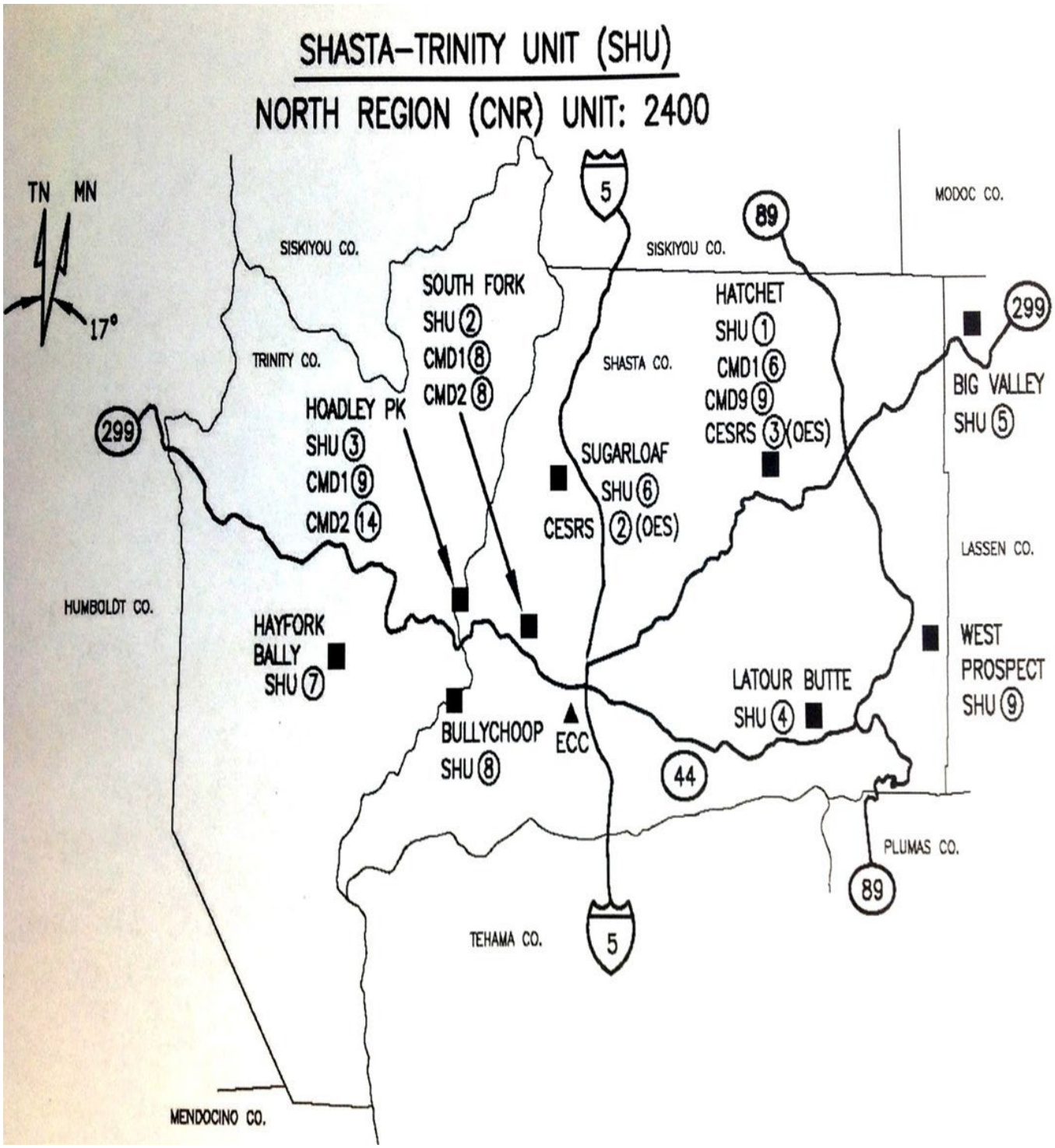
INCIDENT NAME*		**DATE**	**TIME**
ORDER #*			
DESCRIPTIVE LOCATION*			
SECTION*	**TOWNSHIP***	**RANGE***	**MERIDIAN***
LATITUDE* (Degrees, Decimal Minutes)		**LONGITUDE*** (Degrees, Decimal Minutes)	
BASE	**BEARING**	**DISTANCE**	
AIR TACTICS (AIR TO AIR FM)* Freq. Name:* Freq. Number:*		**VICTOR (AIR TO AIR AM)*** Freq. Number:*	
AIR TO GROUND (FM)* Freq. Name:" Freq. Number:*		**GROUND TACTICS (FM)*** Freq Name:" Freq Number:	
COMMAND (FM)* Freq. Name:* Rpt Tone:* TX/RXFreq Number:			**COMMENTS**
REQUEST NUMBERS*	**A-**		**A-**
A-	**A-**		**A-**
A-	**A-**		**A-**
OTHER AIRCRAFT*		**AIRCRAFT HAZARDS***	

12.3 Shasta-Trinity National Forest (SHF) Repeater Map



SITE NAME	TONE	FREQUENCY	SITE NAME	TONE	FREQUENCY
Bonanza King	1	110.9 Hz	Weaver Bally	9	100.0 Hz
Hogback	2	123.0 Hz	Sugarloaf	10	107.2 Hz
Grizzly Peak	3	131.8 Hz	Plummer Peak	11	114.8 Hz
Hayfork Bally	4	136.5 Hz	McFarland	12	127.3 Hz
Ironsides	5	146.2 Hz	Bass	13	141.3 Hz
Grey Butte	6	156.7 Hz	Tomhead	14	151.4 Hz
Bully Choop	7	167.9 Hz	Antelope	15	162.2 Hz
Pickett Peak	8	103.5 Hz			

12.4 CALFIRE Shasta-Trinity Unit (SHU) Repeater Map



2024 Frequency Package:

Frequency Procedures ***MAY 2024***

Aviation Frequencies

Frequency Information

There are changes this year to Air Tactics

There are changes to Air to Air AM Frequencies

In North Ops, there are 17 pre-assigned initial attack air tactics frequencies, 7 pre-assigned initial attack victor frequencies and 7 initial attack air to ground frequencies. ***All initial attack frequencies are shared between adjacent forests or with Calfire and remain under the control of the GACC.***
If you are anticipating that your incident will go into the next operational shift, new frequencies must be ordered through North Ops and the initial attack frequencies released back for initial attack. Any frequencies not requested through and approved by North Ops are not authorized for use.

Ordering Frequencies

AM and FM initial attack aviation frequencies need to be replaced on all incidents for the second day shift. Even if the incident is not completely sure that the fire will extend into the next day shift, order the frequencies to ensure that initial attack frequencies will be available the next day.
The designated secondary FM air tactics frequency is for additional initial attack incidents on your forest/unit. If the secondary FM air tactics frequency is assigned to a new incident notify the GACC so they can coordinate the frequencies for multiple responses.
When ordering AM victor frequencies for the second shift or additional initial attack incidents, send all requests to the GACC. We have the option to use the secondary frequencies or CALFIRE AM secondary frequencies which need to be assigned by their county location. If those frequencies are not available all requests will be sent to the NICC.
When ordering aviation frequencies for the following day's shift, send all requests to the GACC. NEW FREQUENCIES WILL BE ORDERED PER THE CALIFORNIA MOB GUIDE, CHAPTER 50, EXTENDED ATTACK, PG 86.
When the GACC is ordering any frequencies from NICC, a call is placed to the CDO, (Communications Duty Officer) by phone, to inform of the order and to expedite the filling of requests.
Remember to contact the GACC once an incident releases one of their frequencies assigned by NIFC or the GACC, so the GACC knows they are available for other units.
If you have any questions please call North Ops.

Ordering Aviation Frequencies in IROC

Catalog: Aircraft
Category: Frequency

Air Tactics

- Item: FQFM – Air to Air FM

Victor

- Item: FQAA – Air to Air AM

Air to Ground

- Item: FQAG – Air to Ground FM

DECK

- Item: FQDE - Deck

Document in special needs the latitude and longitude of helibase.

Take off & Landing

- Item: FQTO – Takeoff and Landing

Document in special needs the latitude and longitude of helibase.

COMMUNICATIONS ACT OF 1934

Title V-Penal Provisions – Forfeitures
General Penalty
Sec.501. [47 U.S.C. 501]

"Any person who willfully and knowingly does or causes or suffers to be done any act, matter or thing in the Act…shall upon conviction thereof, be punished for such offense…by fine of not more than $10,000 or by imprisonment for a term not exceeding one year or both."

Sample Forfeitures (Section 503)

Failure to Engage in Required Frequency Coordination…… $4,000
Interference……..$7,000
Use of Unauthorized Equipment…….……$5,000
Exceeding Power Limits……..……$4,000
Unauthorized Emissions…….…..$4,000
Using Unauthorized Frequency…….……..$4,000
Misrepresentation/lack of Candor……..……$10,000
Transmission of Indecent/Obscene Materials……..$7,000

Adjustable for priors, continuous/repeated event, intent and egregious conduct.

12.5 Region 5 Smokejumper Frequency Guide (see booklet)

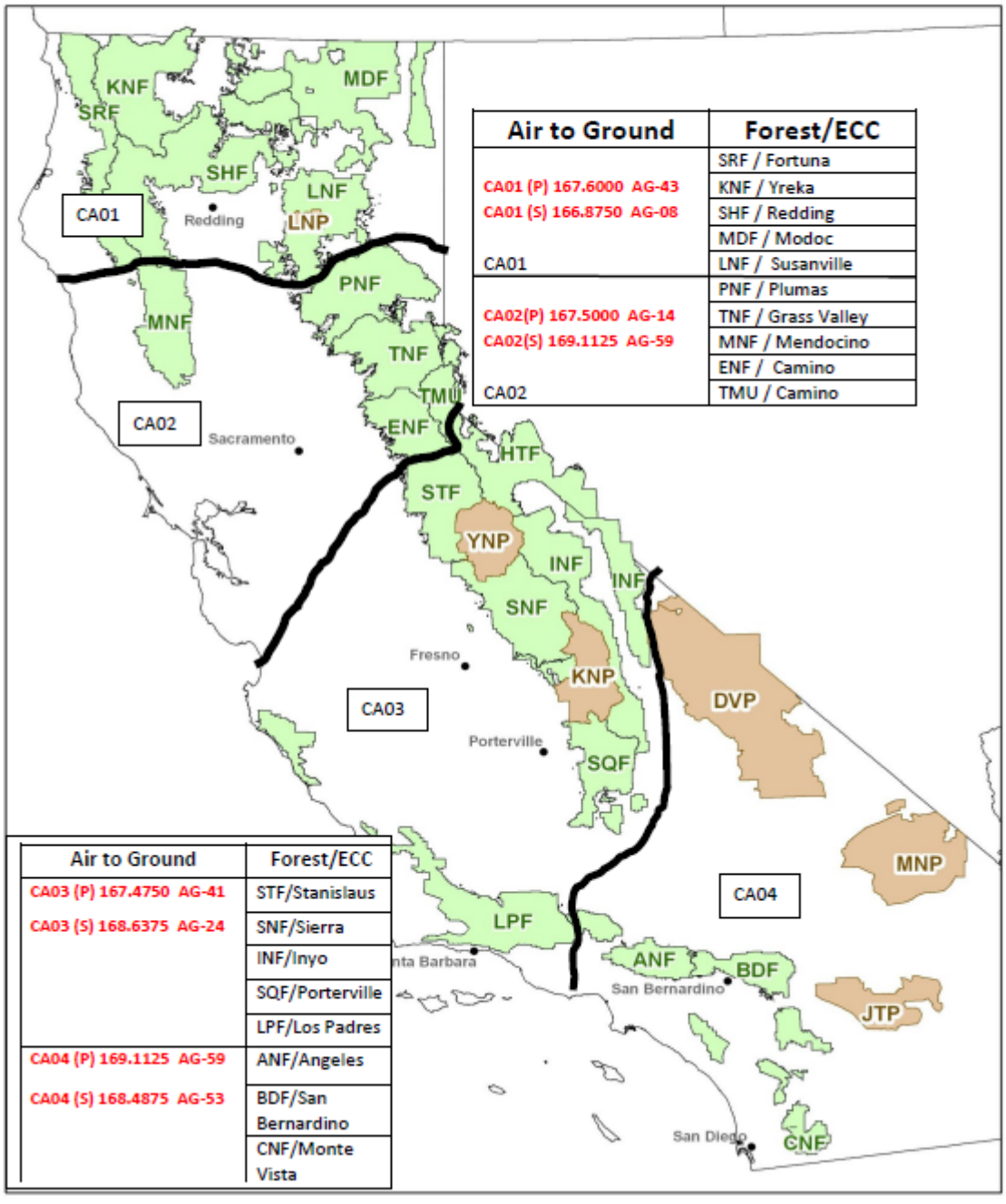
2024 R-5 Frequency Guide.pdf

12.5.1 IA Air to Ground Frequencies

2024 Region 5 California Frequency Zones

Forest Service IA Air to Ground FM (National Naming Convention)

CONTROLLED UNCLASSIFIED INFORMATION \BASIC



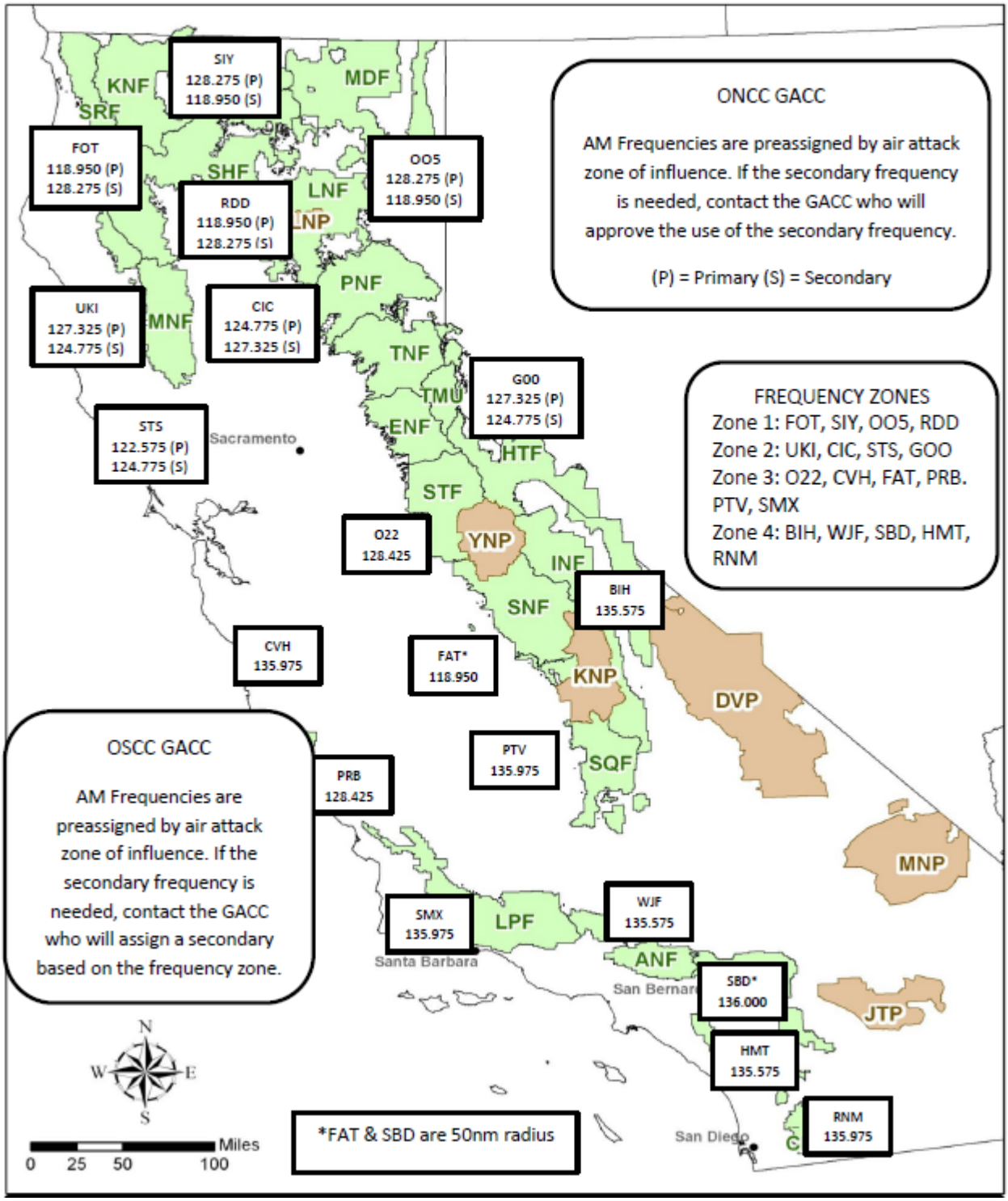
Air to Ground	Forest/ECC
	SRF / Fortuna
CA01 (P) 167.6000 AG-43	KNF / Yreka
CA01 (S) 166.8750 AG-08	SHF / Redding
	MDF / Modoc
CA01	LNF / Susanville
	PNF / Plumas
CA02(P) 167.5000 AG-14	TNF / Grass Valley
CA02(S) 169.1125 AG-59	MNF / Mendocino
	ENF / Camino
CA02	TMU / Camino

Air to Ground	Forest/ECC
CA03 (P) 167.4750 AG-41	STF/Stanislaus
CA03 (S) 168.6375 AG-24	SNF/Sierra
	INF/Inyo
	SQF/Porterville
	LPF/Los Padres
CA04 (P) 169.1125 AG-59	ANF/Angeles
CA04 (S) 168.4875 AG-53	BDF/San Bernardino
	CNF/Monte Vista

12.5.2 Interagency Air to Air AM Frequencies

California 2024 Interagency Preassigned Air to Air AM Victor Frequencies

CONTROLLED UNCLASSIFIED INFORMATION \BASIC



SHASTA-TRINITY AVIATION MISSION OPERATIONAL PLAN

12.5.3 2023 ONCC Air Frequencies Card

ONCC AIR FREQUENCIES 2024 CONTROLLED UNCLASSIFIED INFORMATION \BASIC

PRE-ASSIGNED AIR TACTICS

CAL FIRE PRE-ASSIGNED		
151.2800	AIR TACTICS 4 Tone 1	GOO
151.2950	AIR TACTICS 5 Tone 1	SIY CIC CVH
151.3100	AIR TACTICS 6 Tone 1	FOT STS 005
151.2875	AIR TACTICS 22 Tone 1	UKI 022
151.3025	AIR TACTICS 23 Tone 1	RDD
151.2725	AIR TACTICS 21 Tone 1	GACC
151.3625	AIR TACTICS 24 Tone 1	GACC
CAL FIRE Air Tac's Tone 1 (110.9) RX/TX		
USFS PRE-ASSIGNED PRIMARY		
168.8375	AIR TACTICS 44	KNF LNF
167.3000	AIR TACTICS 53	MNF MDF TMU
166.5625	AIR TACTICS 61	SRF
167.3750	AIR TACTICS 62	ENF
167.8875	AIR TACTICS 63	PNF
168.6875	AIR TACTICS 64	SHF
166.5000	AIR TACTICS 66	TNF
USFS PRE-ASSIGNED SECONDARY		
167.7000	AIR TACTICS 43	LNF TNF SHF
168.8375	AIR TACTICS 44	MDF TMU SRF
169.1250	AIR TACTICS 46	MNF
167.3000	AIR TACTICS 53	KNF PNF
168.6875	AIR TACTICS 64	ENF
USFS NORTH OF LAT 35 30N GACC WIDE		
167.7000	AIR TACTICS 43	
168.8375	AIR TACTICS 44	
167.3000	AIR TACTICS 53	
USFS SOUTH OF LAT 35 30N GACC WIDE		
166.9875	AIR TACTICS 52	
168.6875	AIR TACTICS 64	

PRE-ASSIGNED VICTOR

PRIMARY VICTORS	
118.950	FOT RDD
122.575	STS
124.775	CIC
127.325	UKI GOO
128.275	SIY O05
128.425	O22
135.975	CVH
SECONDARY VICTOR	
118.950	SIY O05
124.775	UKI GOO STS
127.325	CIC
128.275	FOT RDD
	AIR TANKER BASES
FOT	Rohnerville T-96
RDD	Redding T-94 T-95
UKI	Ukiah T-90 T-91
STS	Sonoma T-85 T-86
CIC	Chico T-93
GOO	Grass Valley T-88 T-89
O22	Columbia T-82 T-83
CVH	Hollister T-79 T-80
SIY	Siskyou
O05	Chester
	STATE HELITACK BASES
O19	Kneeland Type 2 UH-1H
HFS	Howard Forest Type 1 S-70
BGS	Boggs Mt. Type 1 S-70
ALM	Alma Type 1 S-70
BBR	Bieber Type 2 UH-1H
VNA	Vina Type 1 S-70
CVH	Hollister Type 1 S-70
	Controlled Unclassified Information/Basic

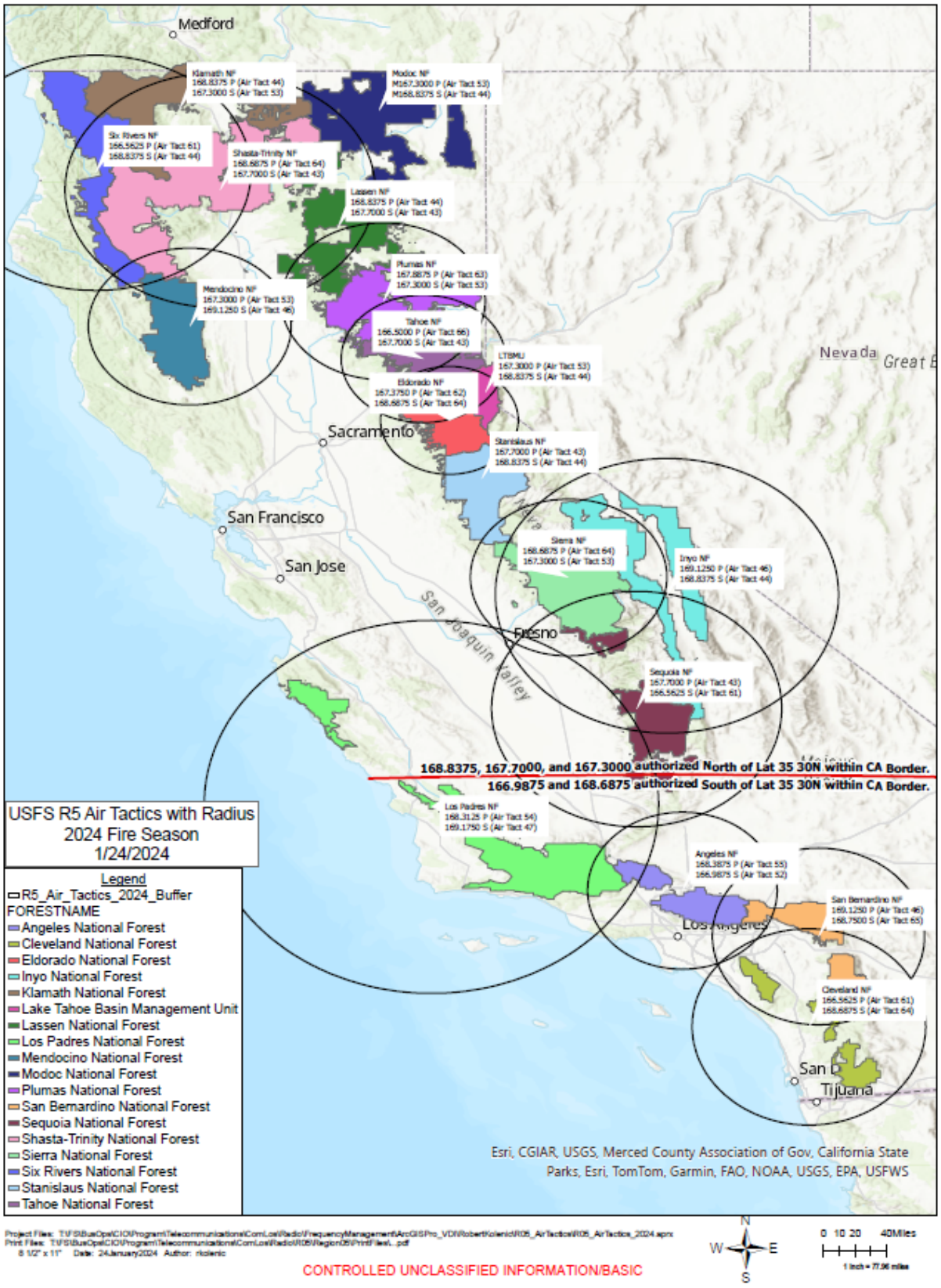
PRE-ASSIGNED AIR TO GROUND

CAL FIRE PRE-ASSIGNED		
151.2200	CDF ATG 1 TX & RX (Tone 16)	SKU TGU BTU
159.2625	CDF ATG 2 TX & RX (Tone 16)	SHU LMU LNU MRN
159.3675	CDF ATG 3 TX & RX (Tone 16)	HUU MEU SCU CZU NEU AEU
CAL FIRE ATG's Tone 16 (192.8)		

USFS AIR TO GROUND		
167.6000	AIR TO GROUND 43	SRF KNF SHF MDF LNF
167.5000	AIR TO GROUND 14	PNF TNF MNF ENF TMU
SECONDARY		
166.8750	AIR TO GROUND 08	SRF KNF SHF MDF LNF
169.1125	AIR TO GROUND 59	PNF TNF MNF ENF TMU

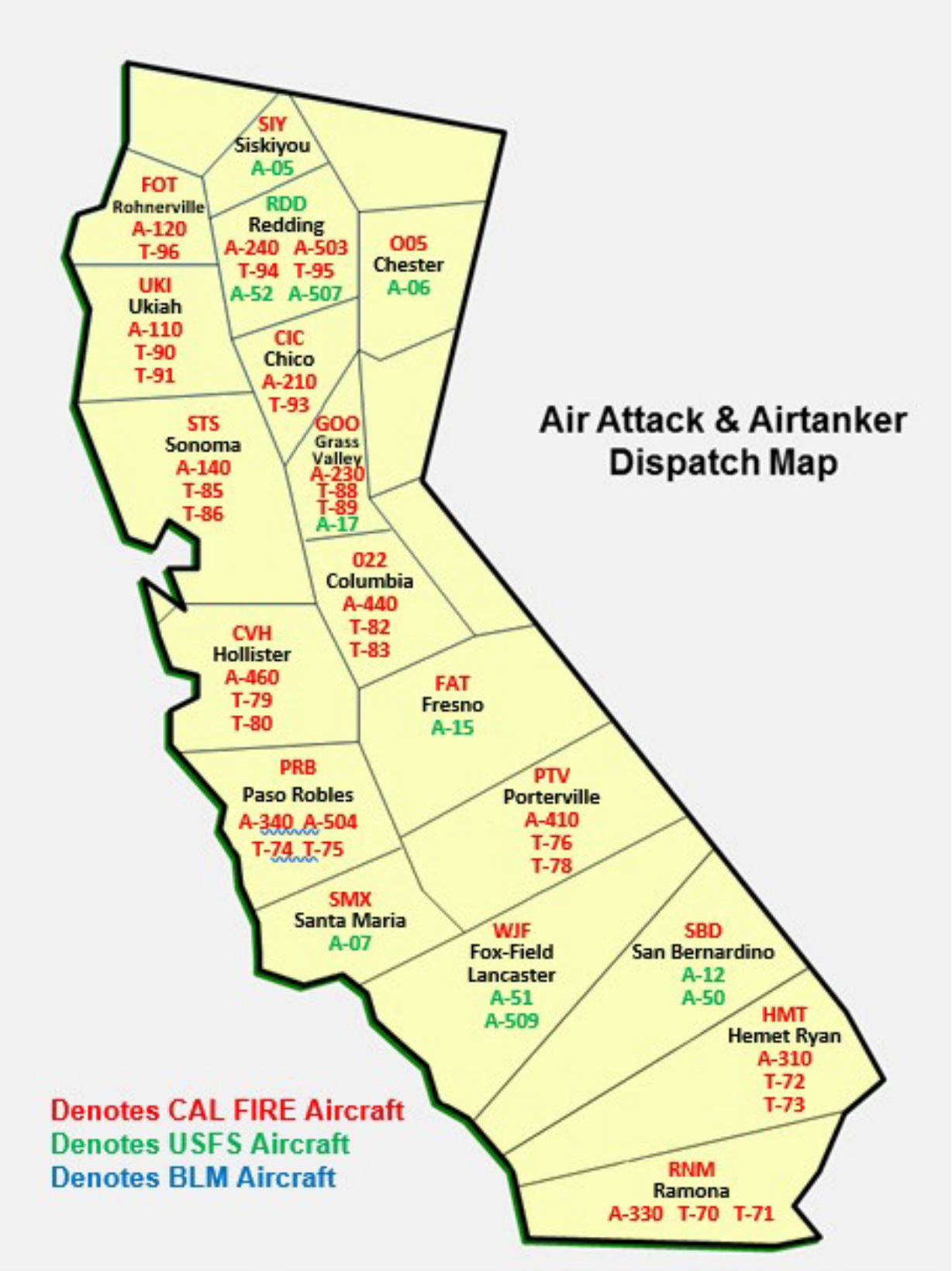
FEDERAL HELITACK BASES	
A30	Scott Valley (KNF) H502
A30	Scott Valley (KNF) H503
TRI	Trinity (SHF) H506
RAV	Ravendale (NOD) H553
5Q2	Chester (LNF) H510
72CA	Quincy (PNF) H512
WHC	White Cloud (TNF) H514
PAC	Pacific (ENF) H516
	All ATGS will monitor: 122.925
	NATIONAL FLIGHT FOLLOW
	168.6500 Tone 1 (110.9) Tx Rx
	AIR GUARD
	168.6250 Tone 1 (110.9) Tx

12.5.4 2023 ONCC Air Tactics Map



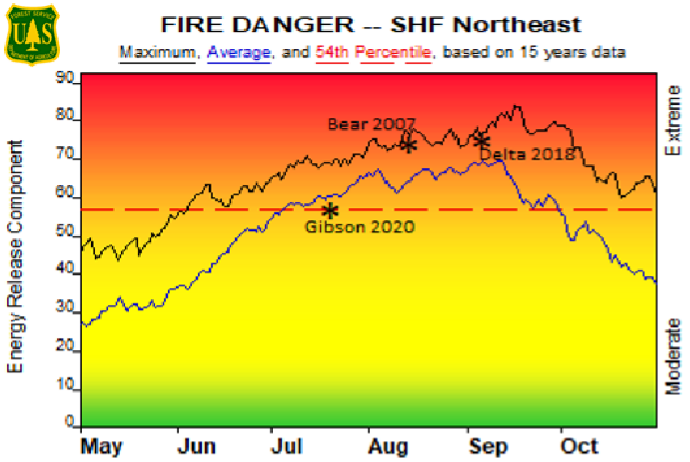
CONTROLLED UNCLASSIFIED INFORMATION/BASIC

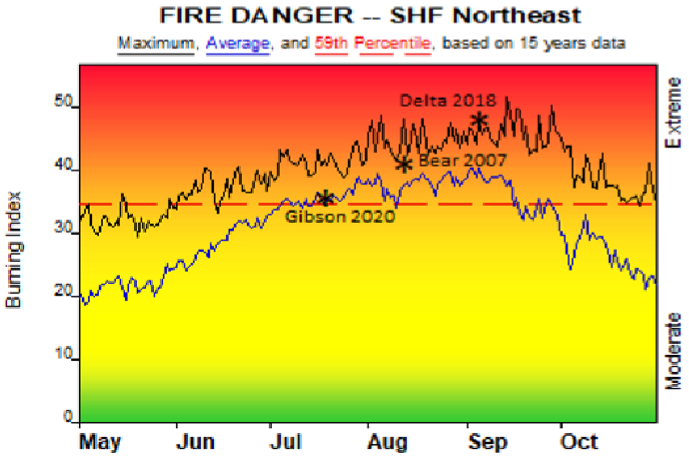
12.6 California Air Tactical, Airtanker and Helicopter Dispatch Maps



12.6.1 California Air Tactical, Airtanker and Helicopter Dispatch Maps

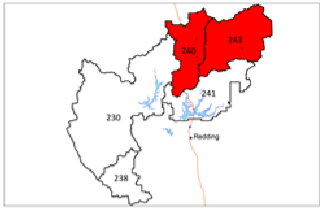
12.7 Shasta-Trinity National Forest Pocket Card (BI)





Fire Danger Area

- FDRA S-240 & S-243 / Fire Wx Forecast Zone: 282, SHF portion of 284 and NW portion of 213 in Sac. River Canyon
- All index values and analyses performed May 1st - Oct 31st, 2006-2020, using Fuel Model Y (timber litter, NFDRS 16).
- NFDRS Compliant RAWS: Sims, Mt Shasta, Bolam, Ash Creek and Round Mountain



Fire Danger Interpretation

- Extreme – Use extreme caution
- High – Watch for Change
- Moderate – Low Potential, maintain awareness

- Maximum – Highest Daily Value 2006-2020
- Average – Shows average index values over 15 years, peaks in this line indicate the peak of fire season – running from late July through mid-September in an average year.
- 54th Percentile ERC (dashed line upper left) – 46% of days from 2006-2020 had ERC above 56
- 59th Percentile BI (dashed line lower left) – 41% of days from 2006-2020 had BI above 34

Remember What Fire Danger Tells You:

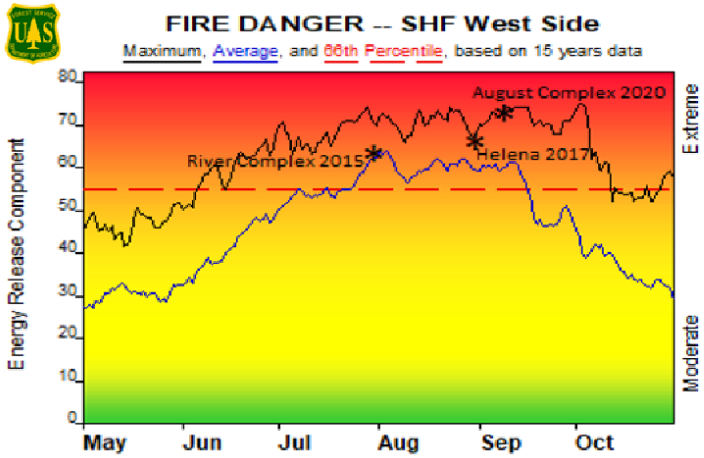
- ✓ **Energy Release Component (ERC) - Wind is NOT part of ERC calculation** (Upper Left)
  - ➢ Represents overall seasonal trend – driven by heavy dead & live fuel moistures.
- ✓ **Burning Index (BI) - Wind IS part of BI calculation** (Lower Left)
  - ➢ Represents day-to-day fluctuations – driven by fine dead moisture and wind
- ✓ **Fire danger is general - Look for local variations in fuels, topography & weather**
- ✓ **Listen to weather forecasts – especially wind!**

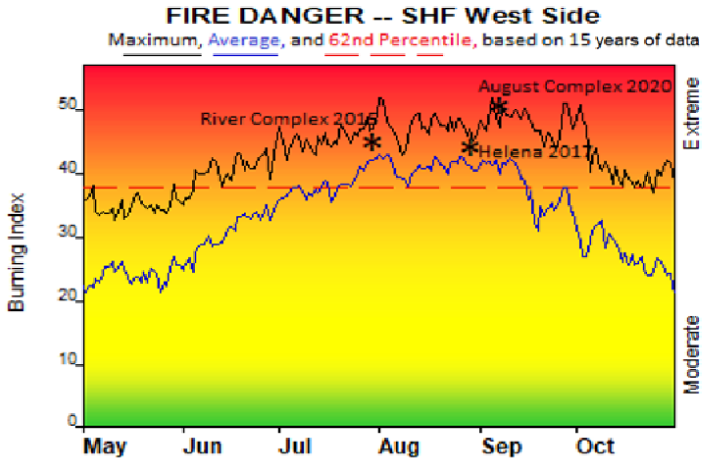
Past Experience:

- Fire season often begins later than the rest of SHF due to higher elevation and heavier winter snow.
- **Winds are a significant driver of growth in this area!** Critical Winds include: 1) Strong diurnal winds in the Sacramento River Canyon 2) Downslope winds from Mt Shasta to the N/NW are common and often dry (Weed Winds). 3) McCloud Flats lack topography – winds can fuel large fire growth in any direction. T-storm outflows in NE California have resulted in large fire growth & entrapments on similar terrain (Frog 2015, Crank 1987)
- 66% of ignitions in this area human caused, ignition density is highest along I-5 corridor and near communities. Industrial timber operations are considered values at risk and contribute to ignitions.
- Bear (2007) was a human caused fire driven by SSW winds on the McCloud Flats (FDRA S-243). Gibson (2020) and Delta (2018) were both human starts along I-5 with different outcomes. Gibson provided control difficulties, but spread was stopped during first shift. Delta occurred at extremes of BI and ERC; driven by strong up canyon winds, Delta grew over 20,000 acres during the first shift and became a major fire, closing I-5 and rail traffic for days.
- Large fire growth has occurred above these thresholds, frequency of large fires increases beyond these values:

Responsible Agency: USFS Shasta-Trinity NF
Updated 5/3/2021

NFDRS	ERC > 56	BI > 34	
Weather	Temp > 81F	Min Rh < 28%	Rh Recovery < 75%

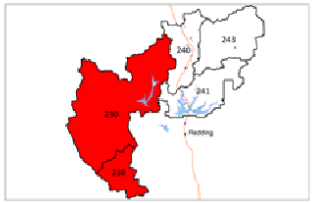




Fire Danger Area

- FDRA S-230 & S-238 / Fire Wx Forecast Zone: SHF portions of 283 and 263
- All index values and analyses performed May 1st- Oct 31st, 2006-2020, using Fuel Model Y (timber litter, NFDRS 16)
- NFDRS Compliant RAWS: Big Bar, Backbone, Scorpion, Trinity Camp, Hayfork, Friend Mountain, Yolla Bolla and Pattymocus

Fire Danger Interpretation



- Extreme – Use extreme caution
- High – Watch for Change
- Moderate – Low Potential, maintain awareness

- Maximum – Highest Daily Value 2006-2020
- Average – Shows average index values over 15 years, peaks in this line indicate the peak of fire season – running from mid-July through mid September in an average year.
- 66th Percentile ERC (dashed line upper left) – 34% of days from 2006-2020 had ERC above 55
- 62nd Percentile BI (dashed line lower left) – 38% of days from 2006-2020 had BI above 38

Remember What Fire Danger Tells You:

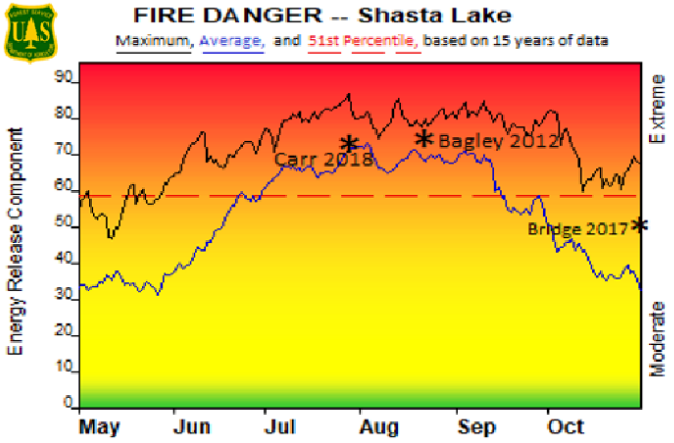
- ✓ **Energy Release Component (ERC) - Wind is NOT part of ERC calculation** (Upper Left)
  - ➢ Represents overall seasonal trend – driven by heavy dead & live fuel moisture
- ✓ **Burning Index (BI) - Wind IS part of BI calculation** (Lower Left)
  - ➢ Represents day-to-day fluctuations – driven by fine dead moisture and wind
- ✓ **Fire danger is general - Look for local variations in fuels, topography & weather**
- ✓ **Listen to weather forecasts!**

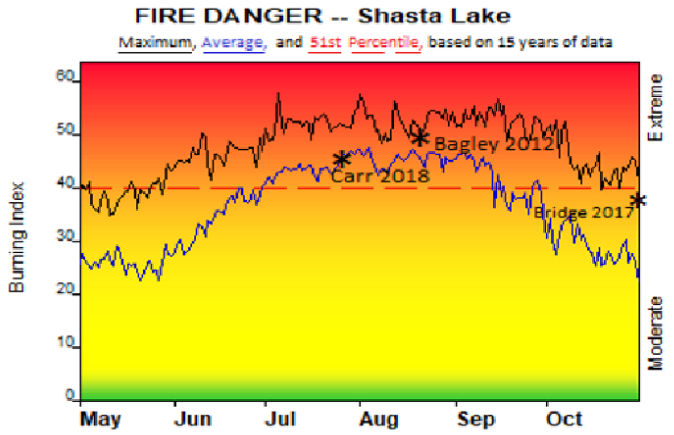
Past Experience:

- Large fire growth may occur without significant wind due to fuels and topography. The 2015 River complex grew steadily in this manner, driven by fuels and topography, with limited large growth driven by critical weather.
- Local winds often not captured by RAWS due to highly variable terrain and canyon influences. Diurnal canyon winds often dominate in main stem and South Fork of the Trinity River. Helena (2017) exemplifies this as a human caused start driven by canyon winds that were not well captured by the BI at RAWS across the 2 FDRAs.
- Dry lightning events are a frequent driver of multi-fire days and may not coincide with the thresholds below (River Complex 2015). Numerous fires overwhelm initial attack capacity, large growth may occur days to weeks after initial ignition. Nearly 60% of ignitions in period analyzed resulted from lightning.
- August Complex (2020) resulted from a major dry lightning event, similar to 2015. The complex burned onto SHF and experienced massive growth during multiple offshore wind events post-ignition. The date of largest growth on September 8th - 9th during one such offshore event is shown, not ignition date.
- Large fire growth has been observed above these thresholds, frequency of large fires increases beyond these values:

NFDRS	ERC > 55	BI > 38	
Weather	Temp > 89F	Min Rh < 21%	Rh Recovery < 70%

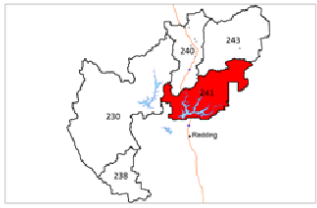
Responsible Agency: USFS Shasta-Trinity NF
Updated 5/3/2021





Fire Danger Area

- FDRA S-241 / Fire Wx Forecast Zone: 213
- All index values and analyses performed May 1st- Oct 31st, 2006-2020, using Fuel Model Y (timber litter, NFDRS 16).
- NFDRS Compliant RAWS: Sugarloaf (SHF) and Oak Mountain



Fire Danger Interpretation

- Extreme – Use extreme caution
- High – Watch for Change
- Moderate – Low Potential, maintain awareness

- Maximum – Highest Daily Value 2006-2020
- Average – Shows average index values over 15 years, peaks in this line indicate the peak of fire season – running from mid-June through late September in an average year.
- 51st Percentile ERC (dashed line upper left) – 49% of days from 2006-2020 had ERC above 58
- 51st Percentile BI (dashed line lower left) – 49% of days from 2006-2020 had BI above 40

Remember What Fire Danger Tells You:

- ✓ **Energy Release Component (ERC) - Wind is NOT part of ERC calculation** (Upper Left)
  - ➢ Represents overall seasonal trend – driven by heavy dead & live fuel moistures
- ✓ **Burning Index (BI) - Wind IS part of BI calculation** (Lower Left)
  - ➢ Represents day-to-day fluctuations – driven by fine dead moisture and wind
- ✓ **Fire danger is general - Look for local variations in fuels, topography & weather**
- ✓ **Listen to weather forecasts – especially wind!**

Past Experience:

- Human starts along the Interstate 5 corridor, near communities and from recreation (Shasta Lake) comprise majority of starts in this area - nearly 70% of starts over period analyzed were human caused.
- Alignment of wind & slope contributes to large fire growth, particularly where canyons enhance wind flow, such as along I-5 / Sacramento River Canyon. North to northeast winds in late summer and fall can be very strong and result in large fire growth. Local RAWS do not always capture these offshore winds.
- Bagley fire (2012) resulted from lightning in very rugged, inaccessible north central portion of this area, grew into long campaign fire, started at elevated ERC and BI levels. Carr Fire (2018), human start along Hwy 299 in Whiskeytown during period of elevated ERC, significant loss of life and property. Bridge fire (2017), human start along I-5 demonstrates late season potential in this area and fire potential at lower end of thresholds.
- Large fire growth has been observed above these thresholds, frequency of large fires increases beyond these values:

NFDRS	ERC > 58	BI > 40	
Weather	Temp > 90F	Min Rh < 23%	Rh Recovery < 61%

Responsible Agency: USFS Shasta-Trinity NF
Updated 5/3/2021

12.8 Redding Sunrise/Sunset Chart for 2024

Pacific Standard Time

May

SUN	MON	TUE	WED	THU	FRI	SAT
			May 1 6:05 am 8:07 pm	May 2 6:04 am 8:08 pm	May 3 6:03 am 8:09 pm	May 4 6:02 am 8:10 pm
May 5 6:01 am 8:11 pm	May 6 5:59 am 8:12 pm	May 7 5:58 am 8:13 pm	May 8 5:57 am 8:14 pm	May 9 5:56 am 8:15 pm	May 10 5:55 am 8:16 pm	May 11 5:54 am 8:17 pm
May 12 5:53 am 8:18 pm	May 13 5:52 am 8:19 pm	May 14 5:51 am 8:20 pm	May 15 5:50 am 8:21 pm	May 16 5:49 am 8:22 pm	May 17 5:48 am 8:23 pm	May 18 5:47 am 8:24 pm
May 19 5:47 am 8:25 pm	May 20 5:46 am 8:26 pm	May 21 5:45 am 8:27 pm	May 22 5:44 am 8:28 pm	May 23 5:44 am 8:28 pm	May 24 5:43 am 8:29 pm	May 25 5:42 am 8:30 pm
May 26 5:42 am 8:31 pm	May 27 5:41 am 8:32 pm	May 28 5:41 am 8:33 pm	May 29 5:40 am 8:33 pm	May 30 5:40 am 8:34 pm	May 31 5:39 am 8:35 pm	

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June

SUN	MON	TUE	WED	THU	FRI	SAT
						Jun 1 5:39 am 8:36 pm
Jun 2 5:38 am 8:36 pm	Jun 3 5:38 am 8:37 pm	Jun 4 5:37 am 8:38 pm	Jun 5 5:37 am 8:38 pm	Jun 6 5:37 am 8:39 pm	Jun 7 5:37 am 8:40 pm	Jun 8 5:37 am 8:40 pm
Jun 9 5:36 am 8:41 pm	Jun 10 5:36 am 8:41 pm	Jun 11 5:36 am 8:42 pm	Jun 12 5:36 am 8:42 pm	Jun 13 5:36 am 8:43 pm	Jun 14 5:36 am 8:43 pm	Jun 15 5:36 am 8:43 pm
Jun 16 5:36 am 8:44 pm	Jun 17 5:36 am 8:44 pm	Jun 18 5:36 am 8:44 pm	Jun 19 5:37 am 8:45 pm	Jun 20 5:37 am 8:45 pm	Jun 21 5:37 am 8:45 pm	Jun 22 5:37 am 8:45 pm
Jun 23 5:38 am 8:45 pm	Jun 24 5:38 am 8:45 pm	Jun 25 5:38 am 8:46 pm	Jun 26 5:39 am 8:46 pm	Jun 27 5:39 am 8:46 pm	Jun 28 5:40 am 8:46 pm	Jun 29 5:40 am 8:46 pm
Jun 30 5:40 am 8:45 pm						

July

SUN	MON	TUE	WED	THU	FRI	SAT
	Jul 1 5:41 am 8:45 pm	Jul 2 5:41 am 8:45 pm	Jul 3 5:42 am 8:45 pm	Jul 4 5:43 am 8:45 pm	Jul 5 5:43 am 8:44 pm	Jul 6 5:44 am 8:44 pm
Jul 7 5:45 am 8:44 pm	Jul 8 5:45 am 8:43 pm	Jul 9 5:46 am 8:43 pm	Jul 10 5:47 am 8:43 pm	Jul 11 5:47 am 8:42 pm	Jul 12 5:48 am 8:42 pm	Jul 13 5:49 am 8:41 pm
Jul 14 5:50 am 8:41 pm	Jul 15 5:50 am 8:40 pm	Jul 16 5:51 am 8:39 pm	Jul 17 5:52 am 8:39 pm	Jul 18 5:53 am 8:38 pm	Jul 19 5:54 am 8:37 pm	Jul 20 5:55 am 8:37 pm
Jul 21 5:55 am 8:36 pm	Jul 22 5:56 am 8:35 pm	Jul 23 5:57 am 8:34 pm	Jul 24 5:58 am 8:33 pm	Jul 25 5:59 am 8:32 pm	Jul 26 6:00 am 8:31 pm	Jul 27 6:01 am 8:30 pm
Jul 28 6:02 am 8:29 pm	Jul 29 6:03 am 8:28 pm	Jul 30 6:04 am 8:27 pm	Jul 31 6:05 am 8:26 pm			

August

SUN	MON	TUE	WED	THU	FRI	SAT
				Aug 1 6:05 am 8:25 pm	Aug 2 6:06 am 8:24 pm	Aug 3 6:07 am 8:23 pm
Aug 4 6:08 am 8:22 pm	Aug 5 6:09 am 8:21 pm	Aug 6 6:10 am 8:19 pm	Aug 7 6:11 am 8:18 pm	Aug 8 6:12 am 8:17 pm	Aug 9 6:13 am 8:16 pm	Aug 10 6:14 am 8:14 pm
Aug 11 6:15 am 8:13 pm	Aug 12 6:16 am 8:12 pm	Aug 13 6:17 am 8:10 pm	Aug 14 6:18 am 8:09 pm	Aug 15 6:19 am 8:08 pm	Aug 16 6:20 am 8:06 pm	Aug 17 6:21 am 8:05 pm
Aug 18 6:22 am 8:03 pm	Aug 19 6:23 am 8:02 pm	Aug 20 6:24 am 8:00 pm	Aug 21 6:25 am 7:59 pm	Aug 22 6:26 am 7:58 pm	Aug 23 6:27 am 7:56 pm	Aug 24 6:28 am 7:54 pm
Aug 25 6:29 am 7:53 pm	Aug 26 6:30 am 7:51 pm	Aug 27 6:31 am 7:50 pm	Aug 28 6:32 am 7:48 pm	Aug 29 6:33 am 7:47 pm	Aug 30 6:34 am 7:45 pm	Aug 31 6:35 am 7:43 pm

September

SUN	MON	TUE	WED	THU	FRI	SAT
Sep 1	Sep 2	Sep 3	Sep 4	Sep 5	Sep 6	Sep 7
6:36 am 7:42 pm	6:37 am 7:40 pm	6:38 am 7:39 pm	6:39 am 7:37 pm	6:40 am 7:35 pm	6:41 am 7:34 pm	6:42 am 7:32 pm
Sep 8	Sep 9	Sep 10	Sep 11	Sep 12	Sep 13	Sep 14
6:43 am 7:30 pm	6:43 am 7:29 pm	6:44 am 7:27 pm	6:45 am 7:25 pm	6:46 am 7:24 pm	6:47 am 7:22 pm	6:48 am 7:20 pm
Sep 15	Sep 16	Sep 17	Sep 18	Sep 19	Sep 20	Sep 21
6:49 am 7:19 pm	6:50 am 7:17 pm	6:51 am 7:15 pm	6:52 am 7:14 pm	6:53 am 7:12 pm	6:54 am 7:10 pm	6:55 am 7:09 pm
Sep 22	Sep 23	Sep 24	Sep 25	Sep 26	Sep 27	Sep 28
6:56 am 7:07 pm	6:57 am 7:05 pm	6:58 am 7:03 pm	6:59 am 7:02 pm	7:00 am 7:00 pm	7:01 am 6:58 pm	7:02 am 6:57 pm
Sep 29	Sep 30					
7:03 am 6:55 pm	7:04 am 6:53 pm					

October

SUN	MON	TUE	WED	THU	FRI	SAT
		Oct 1 7:05 am 6:52 pm	Oct 2 7:06 am 6:50 pm	Oct 3 7:07 am 6:49 pm	Oct 4 7:08 am 6:47 pm	Oct 5 7:09 am 6:45 pm
Oct 6 7:10 am 6:44 pm	Oct 7 7:11 am 6:42 pm	Oct 8 7:12 am 6:40 pm	Oct 9 7:13 am 6:39 pm	Oct 10 7:14 am 6:37 pm	Oct 11 7:15 am 6:36 pm	Oct 12 7:16 am 6:34 pm
Oct 13 7:18 am 6:33 pm	Oct 14 7:19 am 6:31 pm	Oct 15 7:20 am 6:30 pm	Oct 16 7:21 am 6:28 pm	Oct 17 7:22 am 6:27 pm	Oct 18 7:23 am 6:25 pm	Oct 19 7:24 am 6:24 pm
Oct 20 7:25 am 6:22 pm	Oct 21 7:26 am 6:21 pm	Oct 22 7:27 am 6:19 pm	Oct 23 7:28 am 6:18 pm	Oct 24 7:30 am 6:17 pm	Oct 25 7:31 am 6:15 pm	Oct 26 7:32 am 6:14 pm
Oct 27 7:33 am 6:13 pm	Oct 28 7:34 am 6:11 pm	Oct 29 7:35 am 6:10 pm	Oct 30 7:36 am 6:09 pm	Oct 31 7:38 am 6:08 pm		

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12.9 SHF Area Airport Information & Aviation Fuel Locations

SHF Area Airport Information & Aviation Fuel Locations						
Airport Name Town	**ID**	UNICOM ***(Tower)***	**ELEV**	**Latitude / Longitude**	**RUNWAY**	**Jet A**
Alturas Alturas, CA	**AAT**	122.8	4378’	**41°29.98’N / 120°33.92’W**	4300’ x 50’ Asphalt	**Y**
Arcata Arcata, CA	**ACV**	123.0	222’	**40°58.67’N / 124°06.51’W**	6046’ x 150’ Asphalt	**Y**
Rogers Field Chester, CA	**O05**	122.8	4534’	**40°16.94’N / 121°14.47’W**	5020’ X 100’ Asphalt	**Y**
Chico Municipal Chico, CA	**CIC**	122.95 ***(121.0)***	240’	**39°47.72’N / 121°51.51’W**	6724’ x 150’ Asphalt	**Y**
McNamara Field Crescent City, OR	**CEC**	122.8	61’	**41°46.81’N / 124°14.19’W**	5000’ x 150’ Asphalt	**Y**
Nevada Co. Air Park Grass Valley, CA	**GOO**	122.725	3154’	**39°13.44’N / 121°00.19’W**	4351’ x 75 Asphalt	**Y**
Klamath Regional Klamath Falls, OR	**LMT**	122.95 ***(133.975)***	4095’	**42°09.37’N / 121°43.99’W**	10301’ x 150’ Asphalt	**Y**
Rogue Valley Int’l Medford, OR	**MFR**	122.95 ***(119.4)***	1335’	**42°22.45’N / 122°52.41’W**	8800’ x 150’ Asphalt	**Y**
Minden-Tahoe Minden, NV	**MEV**	123.05	4722’	**39°00.06’N / 119°45.12’W**	7400’ x 100’ Asphalt	**Y**
Siskiyou County Montague, CA	**SIY**	123.0	2651’	**41°46.89’N / 122°28.09’W**	7490’ x 150’ Asphalt	**Y**
Oroville Municipal Oroville, CA	**OVE**	122.8	194’	**39°29.27’N / 121°37.32’W**	6020’ x 100’ Asphalt	**Y**
Red Bluff Municipal Red Bluff, CA	**RBL**	123.0	352’	**40°09.02’N / 122°15.13’W**	5431’ x 100’ Asphalt	**Y**
Redding Municipal Redding, CA	**RDD**	122.95 ***(119.8)***	505’	**40°30.54’N / 122°17.60’W**	7003’ x 150’ Asphalt	**Y**
Reno/Stead Reno, NV	**RTS**	122.7	5050’	**39°40.09’N / 119°52.59’W**	9000’ x 150’ Asphalt	**Y**
Susanville Municipal Susanville, CA	**SVE**	122.8	4149’	**40°22.54’N / 120°34.36’W**	4051’ x 75’ Asphalt	**Y**
Truckee-Tahoe Truckee, CA	**TRK**	122.8	5901’	**39°19.20’N / 120°08.37’W**	7000’ x 100’ Asphalt	**Y**
Ukiah Municipal Ukiah, CA	**UKI**	123.0	617’	**39°07.56’N / 123°12.05’W**	4423’ x 150’ Asphalt	**Y**
Weed Weed, CA	**O46**	122.7	2943’	**41°28.85’N / 122°27.27’W**	5000’ x 60’ Asphalt	**Y**

12.10 Shasta-Trinity National Forest Fire Transportation Map QR Codes

NIFC FTP Fire Transportation Maps Site Link:

https://ftp.wildfire.gov/public/incident_specific_data/Fuels/CA_SHF/SHF%20Fire%20Transportation%20Maps/