

R-2508 COMPLEX

INF SIMULCAST RADIO “CROSS-TALK” USE GUIDE

03/27/19

PURPOSE

The purpose of the “Cross-Talk” system is to provide land management agency aircraft and military aircraft with a way to communicate position information to each other (in the blind) during initial response to land management related incidents within the R-2508 Complex (herein referred to as R-2508) until alternate airspace de-confliction measures (Temporary Flight Restrictions, NOTAMS, Concentrated / Widespread Flight Activity Notifications, etc.) take effect.

The procedures outlined herein will serve as guidance for signatories of the 07/05/17 R-2508 Letter of Agreement (LOA) on the testing and use of the “Cross-Talk” system going forward. It capitalizes on frequencies/procedures that land management agency aircraft agreed to use as outlined in the **07/05/17 R-2508 LOA**, and frequencies/procedures military aircraft currently use as outlined in the **05/03/18 R-2508 Complex Users Handbook**.

BACKGROUND

On August 23rd, 1989 a near mid-air collision occurred on the Sequoia National Forest. The mid-air occurred between the Sequoia NF Exclusive-Use 204B (H523) and a Navy A7 Corsair CR (Navy A-7) on the Tree Fire. The Navy A-7 passed 30-40 feet in front of H-523 at an extremely high rate of speed; rotor clearance was estimated at 8-10 feet. This event was classified as an “Aviation Incident with Serious Potential”.

After this event, a trial system was developed to provide a cross-transmit capability between land management aircraft operating on their pre-coordinated frequency (168.6250 MHz) and military aircraft operating on their low level frequency (315.9 MHz). This cross-transmit capability enables aircrews to monitor and provide position reports (in the blind) when operating within R-2508 to assist them in avoiding conflicts with other aircraft operating low-level below radar coverage.

In early 2018, components for a newer test phase simulcast radio “Cross-Talk” system were configured and put into service on the Inyo National Forest atop Mazourka Peak at an elevation of 9420 ft. It is anticipated that this site will provide coverage over most portions of the Owens Valley that reside within R-2508, providing a suitable platform for

proof of concept. These are the only known “Cross-Talk” components that are currently in service and being maintained within R-2508. Based on what information is gathered through their testing and use, it is anticipated that like components will be allocated, configured and placed at additional sites in the future. Proposed additional sites include: Breckenridge Mountain (Sequoia National Forest) and Rodgers Peak (Death Valley National Park).

SYSTEM CONFIGURATION

The current test phase “Cross-Talk” system is configured to transmit and receive simultaneously on both FM and UHF frequencies. Oversight regarding system research, development, testing and maintenance is currently being provided independently by the U.S. Forest Service based on site location land ownership.

Power to the system is limited to that which can be generated through solar panels and stored in batteries. Given this limitation, the system is equipped with a power switch that can be activated remotely (ON or OFF) from dispatch consoles located in the Owens Valley Interagency Communication Center (OVCC) as needed. This mitigation is in place to conserve power and prevent loss of power to adjoining systems located on Mazourka Peak.

NOTE: This system is not capable of providing users with confirmation in real time on whether it is currently switched on or off, or if the available power supply level is low or high. Users should not assume that an absence of transmissions indicates an absence of activity.

ASSIGNED FREQUENCIES

The **FM** frequency programmed into the system is **168.6250 MHz (Tx 110.9 Rx 110.9)**. This frequency is also known as “**Air Guard**” to Land Management Agencies. Air Guard is a frequency reserved for Government aircraft to use for emergency aviation communications. As stated in Chapter 15 (Communications) of the 2019 Interagency Standards for Fire and Fire Aviation Operations:

“This frequency, 168.6250 MHz is only used for:

- Air to air emergency contact and coordination;
- Ground to air emergency contact; and
- Initial call, recall, and re-direction of aircraft when no other contact frequency is available

The **UHF** frequency programmed into this system is **315.9 MHz**. As stated in Section 5.2 (Low Level Flying) of the 2018 R-2508 Complex Users Handbook:

“Aircraft operating below 1,500 feet AGL (including MTR’s) within or transitioning the R-2508 Complex work area airspace **shall** monitor and provide position reports on frequency 315.9 MHz. This frequency assists aircrews in *avoiding conflicts with other aircraft operating low-level below radar coverage.*”

GENERAL PROCEDURES

The following general procedures will be followed regarding activation and use of the test-phase “Cross-Talk” system:

OVCC Dispatch Responsibilities:

- Assigned aircraft dispatchers shall immediately switch the “Cross-Talk” system to “ON” whenever it becomes known that agency aircraft will be mobilized in and/or will be traveling through R-2508 unless otherwise arranged. This will take place prior to lift off or entry whenever possible.
- Assigned aircraft dispatchers shall advise agency aircraft mobilized in and/or traveling through R-2508 upon the aircraft’s initial contact with OVCC or upon initiation of flight following with OVCC regarding “Cross-Talk” system status (ON or OFF).
- Assigned aircraft dispatchers shall switch the “Cross-Talk” system to “OFF” whenever agency aircraft flights within R-2508 have ceased, OVCC is closed or upon request by agency aircraft managers.

Agency Aircraft Manager Responsibilities:

- Agency aircraft managers will consider having OVCC turn off the system once alternate airspace de-confliction measures (Temporary Flight Restrictions, NOTAMS, Concentrated / Widespread Flight Activity Notifications, etc.) take effect or if the amount of radio traffic coming over the “Cross-Talk” is deemed disruptive to aircraft operations.

*Additionally, ferry flights along general aviation routes above 1500 AGL may not require activation of Cross Talk. Prior consultation of the **R-2508 Daily Complex Brief Sheet** is highly recommended for situational awareness.*

Agency Aircraft Responsibilities: (As noted in Section 6 of the R-2508 LOA)

- Agency aircraft shall monitor 168.6250 (110.9) on receive and transmit (also known as Air Guard)
- Agency aircraft operations within R-2508 (in absence of a TFR or Activity Notification) shall transmit position reports (or transmit in the blind) on Air Guard using Geo-Reference Points or common geographical references.
- Agency aircraft operating below 1,500 feet AGL (including MTR's) within or transitioning the R-2508 Complex work area airspace shall monitor and provide position reports (in the blind) on Air Guard 168.6250 tone 1 (110.9) receive and transmit.

Position reports given in the blind are not meant to be acknowledged.

Additionally, they may vary depending upon routines that have been developed by the user and limited based on the user's level of familiarity with MOA locations, Sidewinder route segments and Geo Reference points as identified within the R-2508 LOA and R-2508 Complex "Users Handbook." Quick, abbreviated position reports are commonly used by the military and may be difficult to understand by those unfamiliar with the terminology. Reference the **R-2508 Complex "Users Handbook"** on the R-2508 Complex [website](#) at for more information.

The examples provided below are intended to give new users a general overview of the types of language that may be used or heard once the "Cross-Talk" is activated.

Example Agency Aircraft Position Reports:

At Takeoff - *"Helicopter 4-T-V lifting Independence to Olancha Peak."*

Upon Entry - *"Helicopter 2-W-M entering Owens Valley MOA from the North at 900 AGL."*

In Flight - *"Helicopter 5-2-5 crossing Jedi Transition north to south at 300 AGL."*

Example Military Aircraft Position Reports:

Entering MOA - *"XPERT 1-1 entering Panamint from the West at 400 knots, 500 AGL."*

Sidewinder / Jedi Transition - *“VAMPR 2-3 with two F-18s entering Sidewinder, Point Charlie, for Jedi.”*

Geo References Points - *“ECHO 1-2 at Owens Lake going Star Wars at 300 AGL, 420 knots.”*

EDUCATION AND AWARENESS

Signatories of the R-2508 LOA will be responsible for briefing their assigned aircraft on the procedures outlined in this guide, the contents of the R-2508 LOA, and the R-2508 Complex User’s Handbook as soon as a feasible and, if possible, prior to conducting aircraft operations within R-2508.

Required on-site or over-the-phone R-2508 Annual User Briefs can be requested by contacting an R-2508 Airspace Coordinator at 661-277-2508.

EXISTING GUIDANCE

Following the finalization of the R-2508 LOA, updated language was submitted for inclusion in the Inyo National Forest section of Region 5 Frequency Guide that is produced by Region 5 Smokejumpers annually. This guide, also known as the “Smokejumpers Guide,” is distributed to cooperating land management agencies throughout California. Copies are readily available and widely utilized/referenced by dispatch, aviation and field personnel.

The following language was submitted for inclusion in the Smokejumpers Guide:

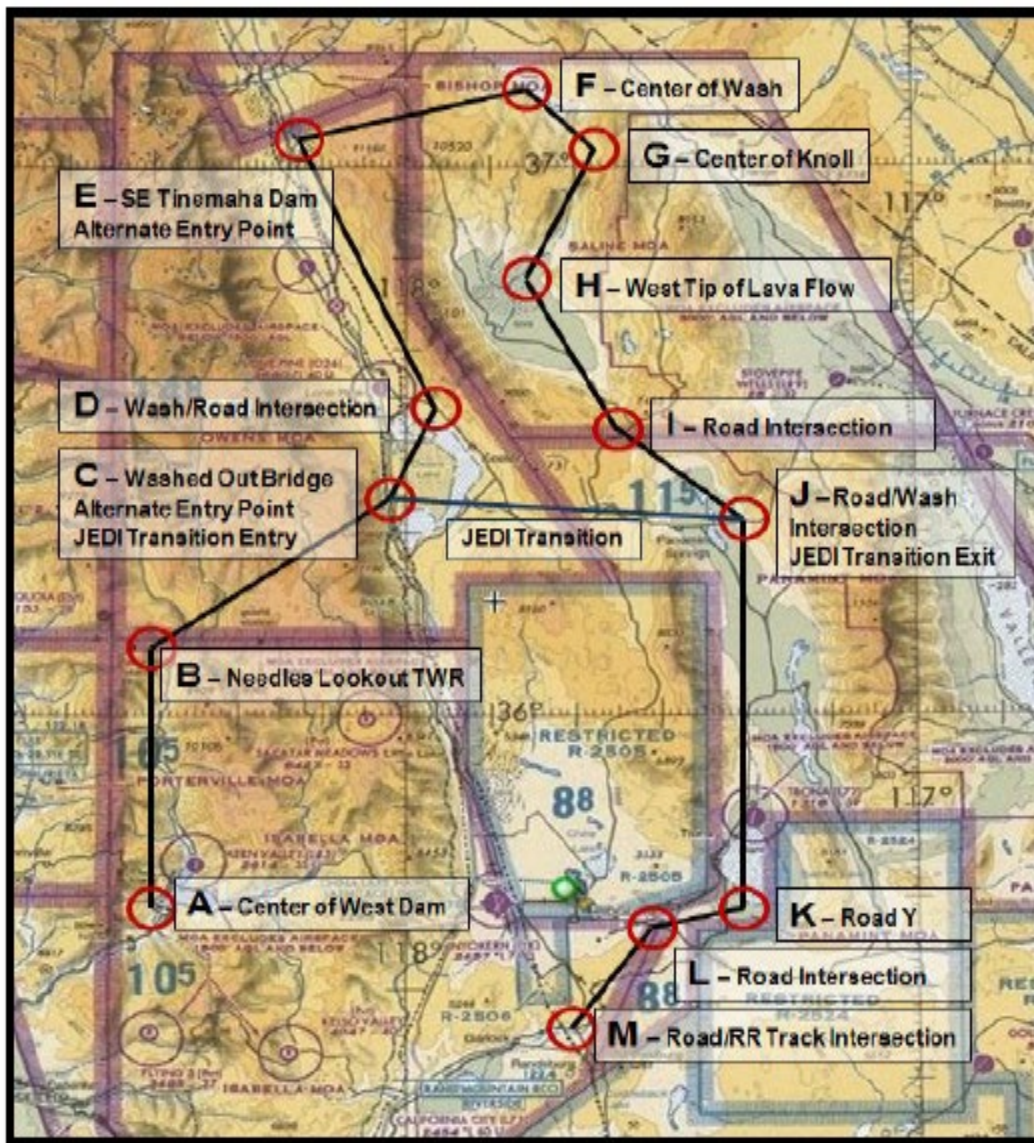
IMPORTANT AIRCRAFT INFORMATION:

The airspace extending south of Bishop, CA is heavily used by military aircraft operating within the **“R-2508 Complex.”** Information regarding the R-2508 Complex and the Special Use Airspace within it can be found in the “R-2508 Users Handbook” posted on the [website](#). A “Cross-Talk” system is being developed to enable Agency and Military aircraft to monitor “in the blind” transmissions in this area when triggered by OVCC Dispatch during Initial Attack Responses. Aircraft flying in the area should periodically transmit their location, heading and altitude “in the blind” over Air Guard (RX/TX 168.6250: RX/TX Tone 1) using georeferenced points noted in the R-2508 User Handbook and other common geographic references.

APPENDIX(Excerpt from [R-2508 Complex](#) User's Handbook)

5.2.2. SIDEWINDER LOW LEVEL (see Figures 5-2 & 5-3): The Sidewinder Low Level Route (Rev 2) with JEDI Transition was developed to standardize low level training for DoD operations within the R-2508 Complex and is for local use only. This route is not a published military training route (MTR).

- All points will be flown sequentially, i.e. A, B, C...M or C, J, K...M, etc.
- Opposite direction flight is prohibited.
- Aircrews must comply with R-2508 Complex noise sensitive area requirements IAW paragraph 2.4 of this handbook.
- Aircrews entering the Sidewinder LL via Point A must avoid Lake Isabella and surrounding communities.



5-2 Figure: Sidewinder Low Level Route