

EMPIRE CHALLENGE

DATA CALL ADDENDUM FOR TACTICAL NETWORKS



TABLE OF CONTENTS

SECTION 1: OVERVIEW & INSTRUCTIONS	2
1.1 GENERAL OVERVIEW	2
1.2 FREQUENCY REQUESTS	Error! Bookmark not defined.
1.3 SATCOM REQUIREMENTS	Error! Bookmark not defined.
1.4 COMSEC/CRYPTO REQUIREMENTS	Error! Bookmark not defined.
1.5 OPERATIONAL VISUAL (OV-1) SUBMISSION	Error! Bookmark not defined.
SECTION 2: FREQUENCY REQUEST WORKSHEET	Error! Bookmark not defined.
SECTION 3: SATELLITE ACCESS REQUEST	Error! Bookmark not defined.
SECTION 4: COMSEC/CRYPTO REQUIREMENTS	Error! Bookmark not defined.
SECTION 5: OPERATIONAL VISUAL DIAGRAMS	Error! Bookmark not defined.

SECTION 1: OVERVIEW & INSTRUCTIONS

1.1 GENERAL OVERVIEW

This addendum to the EC08 Data Call is generated by the USJFCOM J6 communications planning team. It is intended primarily for, but not limited to, EC08 participants who have a requirement or intent to install, operate, or integrate with "tactical" airborne and/or ground radio networks. Data provided by EC08 participants in this addendum will be processed by USJFCOM J6 planning team to achieve the following objectives: design a overarching tactical network architecture; process and assign requests for frequencies; process and develop an EC08 COMSEC Call-out message; and develop an Annex K (Communications) to OPORD 08-01 CTF781 & Operation Desert Rose. Please answer all questions directly on this data call and email the completed document back to respective USJFCOM planners before the suspense dates listed below.

1.2 FREQUENCY REQUESTS.

Provided in Section 2.0 is a detailed questionnaire designed for EC08 participants who have requirements for frequencies to operate equipment or stand-alone networks outside of the demo's common tactical ground or airborne networks (i.e. C2 net, ATC net, etc.). In addition, any EC08 participants who are bringing systems or devices in to China Lake that operate on fixed frequencies (sensors, wireless routers, etc) that can not be tuned or changed must complete the questionnaire as well to ensure proper frequency de-confliction. The worksheet must be completed and submitted **not later than 1 Apr 08** to GySgt Vincent Morgan at vincent.morgan@jfc.com.mil. Any classified requirements, please contact GySgt Morgan at 757.836.8014.

1.3 SATCOM REQUIREMENTS.

Provided in Section 3.0 is a short questionnaire for EC08 participants who have a requirement for satellite access during EC08. USJFCOM J6 will submit a consolidated Satellite Access Request (SAR) and Gateway Access Request (GAR) for EC08 for UHF, SHF, and EHF requirements. The questionnaire must be submitted **not later than 1 Apr 08** to CPO Robert McGee at robert.mcgee@jfc.com.mil. Any questions or clarification to SATCOM requirements may be directed to CPO McGee at 757.836.7736 after 10 Mar 08.

1.4 COMSEC/CRYPTO REQUIREMENTS.

Provided in Section 4.0 is a short questionnaire for EC08 participants who have a requirement for COMSEC. USJFCOM J6 is prepared to assist EC08 participants with COMSEC requirements and work one on one with participants who have unique COMSEC needs or issues. EC08 participants who require COMSEC, but do not require USJFCOM assistance are asked to complete Questions 1 & 5 of the questionnaire in order for USJFCOM to complete Annex K with to the fullest detail possible. The questionnaire must be submitted **not later than 1 Apr 08** to CW5 Ellen Cline at ellen.cline@jfc.com.mil. Any questions or clarification to COMSEC requirements may be directed to CW5 Cline at 757.836.1105.

1.5 AIRBORNE NETWORKS & TACTICAL C2

Provided in Section 5.0 is a short questionnaire for EC08 participants who have a requirement stand-up or integrate into an airborne network, air voice network, or ground voice network. USJFCOM expects a possible total of 8 air voice networks and 3 ground voice networks at China Lake NAWC to support EC08. USJFCOM J6 will work with EC08 participants to consolidate requirements and assist China Lake principles to engineer the required networks to assure the

demonstrations success and feed the Annex K. EC08 participants who anticipate standing up or integrating into any of these networks are asked to complete their respective areas under Section 5 and submit completed questionnaires by email to steve.waltner@jfc.com **not later than 1 Apr 08**. Any unique requirements or issues can be directed to LCDR Steve Waltner at 757.836.8285.

SECTION 2: FREQUENCY REQUESTS

Provided in Section 2.0 is a detailed worksheet designed for EC08 participants who have requirements for frequencies to operate equipment or stand-alone networks outside of the demo's common tactical ground or airborne networks (i.e. C2 net, ATC net, etc.). In addition, any EC08 participants who are bringing systems or devices in to China Lake that operate on fixed frequencies (sensors, wireless routers, etc) that can not be tuned or changed must complete the worksheet as well to ensure proper frequency de-confliction. Please ignore the numbering scheme in the worksheet below, it is designed as such to process more efficiently. The worksheet must be completed and submitted ***not later than 1 Apr 08*** to GySgt Vincent Morgan at vincent.morgan@jfc.com. Any classified requirements, please contact GySgt Morgan at 757.836.8014.

- 001. Who is the point of Contact for this project/exercise?
- 002. What is the phone number for the person in item 001?
- 005. What is the security classification?
- 110. The number of frequencies needed from a specific band(s) or frequency(s).
- 110.a. What band(s) do you need the frequencies taken from or what specific frequencies are needed for this request?
- 113. What is/are the frequencies going to be used for? I.e. Mobile, Fixed, or Aeronautical
- 114. What is the bandwidth and type of transmission? (20K AM voice or 6K FM data)
- 115. What is the transmitter power output?
- 130. List the amount of daily use, e.g., 24 hours, night, day, and specified time.
- 140. When do you require the frequency?
- 141. Is this request for a temporary or permanent frequency authorization?
- 207. What unit or organization are you with?
- 300. What is the state or country you will be transmitting from?
- 301. What is the transmitter antenna location, e.g., "Nellis"?
- 303. List the geographical coordinates for item 301.
- 306. What radius will the transmitter operate in?
- 340. What type of transmit equipment will you use, e.g., "ARC-164"?

- 341. How many transmitters will use the requested frequency?
 - 354. What type of transmit antenna will be used, e.g., parabolic, whip?
 - 357. What is the gain of the transmit antenna?
 - 358. What is the transmit antenna terrain elevation?
 - 359. How high is the transmit antenna above the ground?
 - 362. Is the transmit antenna directional, non-directional, or does it rotate?
 - 363. How is the transmit antenna polarized, e.g., horizontal, vertical, etc.?
 - 400. What state or country are your receivers in?
 - 401. What is the receiver antenna location, e.g., "Nellis?"
 - 403. List the geographical coordinates for item 401.
 - 406. What radius will the receivers operate in?
 - 440. What type of receives equipment will you use, e.g., "ARC-164"?
- Give a full description of your requirement. Be very specific.
- 711. If this request is for aircraft, how high will they fly and what radius will they stay within while using the requested frequency?
 - 804. What are the tuning increments and tuning range of the transmitter? "402-420Khz in 25 Khz steps."
- Or is the frequency fixed? (its not tunable & can not be changed)
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SECTION 3: SATCOM REQUIREMENTS

Provided in Section 3.0 is a short questionnaire for EC08 participants who have a requirement for satellite access during EC08. USJFCOM J6 will submit a consolidated Satellite Access Request (SAR) and Gateway Access Request (GAR) for EC08 for UHF, SHF, and EHF requirements. The questionnaire must be submitted **not later than 1 Apr 08** to CPO Robert McGee at robert.mcgee@jfc.com.mil. Any questions or clarification to SATCOM requirements may be directed to CPO McGee at 757.836.7736 after 10 Mar 08.

1. POC Information: Please provide Name, Unit or Organization, telephone number, and an unclassified email address.
2. Provide what kind of satellite accesses is needed to support objectives for the event (i.e. 25K dedicated, 5K dedicated, DAMA).
3. Provide a brief description of what the satellite link will be used for. If possible, please submit any visual diagrams (ppt. or VISIO) for inclusion into Annex K, and to better understand your requirement.

SECTION 4: COMSEC/CRYPTO REQUIREMENTS

Provided in Section 4.0 is a short questionnaire for EC08 participants who have a requirement for COMSEC. USJFCOM J6 is prepared to assist EC08 participants with COMSEC requirements and work one on one with participants who have unique COMSEC needs or issues. EC08 participants who require COMSEC, but do not require USJFCOM assistance are asked to complete Questions 1 & 5 of the questionnaire in order for USJFCOM to complete Annex K with to the fullest detail possible. The questionnaire must be submitted ***not later than 1 Apr 08*** to CW5 Ellen Cline at ellen.cline@jfc.com. Any questions or clarification to COMSEC requirements may be directed to CW5 Cline at 757.836.1105.

1. POC Information: Please provide Name, Unit or Organization, telephone number, and SIPR email address.
2. Provide Short Titles required if known.
3. Provide Controlling Authority information if known.
4. Provide COMSEC Account Number if known.
5. If your organization requires COMSEC, and does not require USJFCOM assistance, please provide POC information in order for USJFCOM to contact and coordinate your requirements into Annex K.

SECTION 5: OPERATIONAL VISUAL SUBMISSION

Provided in Section 5.0 is a short questionnaire for EC08 participants who have a requirement stand-up or integrate into an airborne network, air voice network, or ground voice network. USJFCOM expects a possible total of 8 air voice networks and 3 ground voice networks at China Lake NAWC to support EC08. USJFCOM J6 will work with EC08 participants to consolidate requirements and assist China Lake principles to engineer the required networks to assure the demonstrations success and feed the Annex K. EC08 participants who anticipate standing up or integrating into any of these networks are asked to complete their respective areas under Section 5 and submit completed questionnaires by email to steve.waltner@jfc.com **not later than 1 Apr 08**. Any unique requirements or issues can be directed to LCDR Steve Waltner at 757.836.8285.

LINK-16 PARTICIPANTS:

1. POC Information: Please provide Name, Unit or Organization, telephone number, and an unclassified email address.
2. What information is to be passed via the Link-16 Network?
3. What information will be received via the Link-16 Network?
4. What is the security classification of data to be exchanged?
5. Provide a brief description of what objectives are to be achieved over the Link-16 network.
6. Provide any visual diagrams (ppt. or VISIO) for inclusion into Annex K, and to better understand your requirement for what Link 16 Network will support during EC 08?

TTNT PARTICIPANTS:

1. POC Information: Please provide Name, Unit or Organization, telephone number, and an unclassified email address.
2. What information is to be passed via the TTNT Network?
3. What information will be received via the TTNT Network?
4. What is the security classification of data to be exchanged?
5. What IP Addresses are required for the TTNT
6. Provide a brief description of what objectives are to be achieved over the TTNT network.

7. Provide any visual diagrams (ppt. or VISIO) for inclusion into Annex K, and to better understand your requirement for what Link 16 Network will support during EC 08?

AIR VOICE NETWORKS: EC08 participants who have a requirement to stand-up or enter one or more of the following networks must complete the following section: Air Traffic Control/China Control; C2 Coordination; AOR Control Net; Terminal Control Net; Voice Product Net; Personal Recovery Net; Air Mobility Net; HF Common Net:

1. POC Information: Please provide Name, Unit or Organization, telephone number, and an unclassified email address.
2. Provide number and type of system entering the network.
3. Provide Call Signs if known.
4. Provide any unique requirements specific to given networks above.

GROUND VOICE NETWORKS: EC08 participants who have a requirement to stand-up or enter one or more of the following networks must complete the following section: LMR Net; C2 Net; Voice Product Net:

1. POC Information: Please provide Name, Unit or Organization, telephone number, and an unclassified email address.
 2. Provide number and type of system entering the network.
 3. Provide Call Signs if known.
 4. Provide any unique requirements specific to given networks above.
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