

CUSTOMER

COMMITMENT

THALES COMMUNICATIONS, INC.

CUSTOMER NEWSLETTER

Volume 6/ Issue 1

Clarksburg, Maryland

“WHY USE THE INTEGRATED WAVEFORM FOR SATELLITE COMMUNICATIONS?”

A message from Walt Hepker, Thales Communications, Inc. VP of Business Development. As U.S. Department of Defense services continue to increase usage of tactical satellite (TACSAT) terminals, there are insufficient channels to support user requests. While aging satellites continue to degrade, a gap filler is necessary to support requests until the Mobile User Objective System (MUOS) becomes available. Thales Communications Inc., headquartered in Clarksburg, Maryland, is prepared to offer the warfighter a lightweight solution with SATCOM IW.

SATCOM IW, the Integrated Waveform, addresses the need to allow more users space and time on channels while improving both voice and data quality. SATCOM IW (MIL-STD-188-181C, -182B, -183B), the enhanced method of multiplexing radios on the same

channel, is the replacement for Demand Assigned Multiple Access (DAMA) SATCOM. Thales Communications’ AN/PRC-148 JTRS Enhanced Multiband Inter/Intra Team Radio, or JEM, is the only handheld radio currently available supporting SATCOM IW. Utilizing currently fielded AN/PRC-148 JEM radios, users will be able, via software download, to enable SATCOM IW, further distributing SATCOM capability across the battlefield.

The benefits of SATCOM IW for the warfighter are many; it doubles the capacity for communications services and increases data throughput capacity compared to legacy DAMA. Voice communications quality is improved through inclusion of Mixed Excitation Linear Prediction (MELP) voice encoding, and overall usability is improved through a more intuitive human-machine interface. This new waveform capability is transparent

to the warfighter and has a minimum impact to fielded radios. The AN/PRC-148 JEM with SATCOM IW not only enhances capabilities of the dismounted warfighter; recent tests have proved successful in utilizing the radios in vehicle configurations for SATCOM On The Move (SOTM) capability.

As users continue to face challenges such as mountainous terrain and urban environments, the increased availability of SATCOM channels will greatly improve safety and situational awareness across the battlefield. The AN/PRC-148 has completed JITC testing for SATCOM IW and this waveform will be available shortly. Adding to the currently available waveforms that the AN/PRC-148 JEM supports, SATCOM IW will further enhance the effectiveness of the warfighter and leaders on the battlefield.

For More Information On SATCOM IW See Page 3



Walt Hepker, Vice President
Business Development



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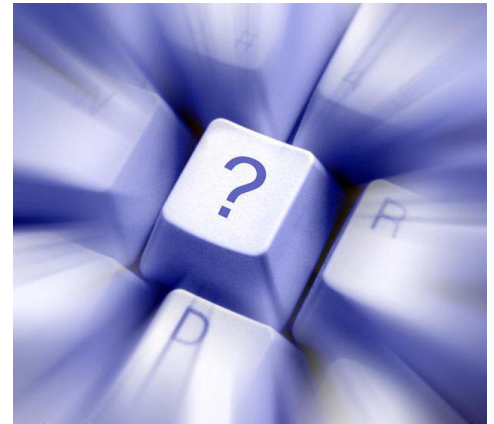
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CUSTOMERSURVEY

HOW ARE WE DOING? WHAT CAN WE DO BETTER?

Thales would like thank all of you who participated in the recent tactical radio phone survey administered on our behalf by *IntelliQ*, formerly *Diagnostics Plus*. Your responses have provided valuable feedback in our efforts to maintain close user ties and to ensure our resources are focused on critical areas of product operation, features and support services. This feedback has been analyzed and reviewed by management to ensure we continue to produce and support the tactical equipment required for your missions. As a direct result, improvement actions have been implemented. We realize that lives depend on what we do and we will always act accordingly.



We thank you for your service and appreciate your feedback.

Any questions/comments or feedback please email customer.service@thalescomminc.com

PRODUCTUPDATE

LIBERTY™ MULTIBAND LAND MOBILE RADIO (LMR), PRC-7332

Liberty now Intrinsic Safe

Thales Communications, Inc. announces that the Liberty LMR has been certified to the Factory Mutual (FM) Approval Standard 3610:1988 for Intrinsic Safe equipment. Intrinsic Safe ensures that the radio can be operated in an explosive environment, that it will not trigger ignition in the presence of flammable or combustible material. Intrinsic Safe certification complies with the requirements of the US Department of Homeland Security [DHS] Science and Technology Directorate.

“Agencies now have an Intrinsic Safe option available in a full-spectrum multiband,” said Mike Sheehan, President and CEO of Thales Communications, Inc. “Successful completion of the testing further illustrates Thales’s dedication to providing interoperability to all users, including those working in hazardous environments.”

Application for Equipment Frequency Allocation, DD Form 1494

The Liberty LMR, PRC-7332, is now J/F-12 spectrum management certified for Department of Defense land mobile operations [J/F-12/09679]. It is the world’s first Project 25 Multiband Land Mobile Radio to receive both the J/F-12 and Intrinsic Safe Certifications.

Over-the-Air-Rekey [OTAR]

The Liberty LMR has successfully completed OTAR testing with the Customs and Border Protection [CBP] agency. OTAR improves communication security by allowing secure key changes without the radios having to be returned to a maintenance facility for manual rekeying.

DOI Fire Testing

The Liberty LMR has successfully completed Department of the Interior (DOI) fire testing. Having previously received Law Enforcement and Tiers 1, 2, and 3 approvals, it is fully approved for sale to DOI. It is the only multiband radio with DOI fire approval.

Project 25 Compliance Assessment Program [P25 CAP]

DHS Project 25 Compliance Assessment Program [P25 CAP] was successfully completed for trunking interoperability and performance, qualifying Thales to file a Suppliers Declaration of Compliance [SDOC].

MADE IN THE USA

The Liberty LMR is manufactured at Thales’s Clarksburg, Maryland, facilities. The products are available for purchase through GSA Schedule GS-35L-0001L, DOI contract GS-TFMG-BPA-09-0012 and through dealer channels. Please visit www.thalesliberty.com



CONTACT INFORMATION

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WHAT ISSATCOM IW

What is SATCOM IW?

- The SATCOM Integrated Waveform (IW) is an enhanced method of multiplexing radios on the same channel.
- It uses carrier phase modulation (CPM) to allow for more access on the same channel. CPM was implemented in radios to provide higher data throughput on the UHF dedicated satellite channels and in Line-Of-Sight mode.
- It is the replacement for Demand Assigned Multiple Access (DAMA) SATCOM.
- IW is a flexible waveform structure that allows communication accesses to be tailored based upon operational need.

Why do we need SATCOM IW?

- Military services continue to increase their usage of tactical satellite (TACSAT) terminals, with insufficient channels to support user requests.
- Aging satellites continue to degrade while waiting for replacement constellations.
- Mobile User Objective System (MUOS) development continues to slip, with no near-term replacement available.

How does SATCOM IW work?

- One channel is assigned as the master and contains the System Forward Order Wire (SFOW).
- All other channels fall under the master channel and can be either 25kHz or 5kHz bandwidth.
- Each channel has its own format that is changeable upon user demand.
- Time slots for ranging and other communications can be arranged based on these same requirements.
- Updates are also obtainable from Preplanned Update Forward Order Wires (PUFOWs) transmitted on other channels.

Is SATCOM IW currently available on any handheld radios?

- SATCOM IW has been approved for the AN/PRC-148 JTRS Enhanced MBiTR (JEM).


What are the benefits of SATCOM IW?

- Simpler operation, nearly one step to communicate.
- Waveform structure allows communication access to be tailored according to operational need.
- Data rates up to 19.2kbps.
- Provides up to 14 networks at 2400bps each, thus supporting Narrowband Voice Operations with Mixed Excitation Linear Prediction (MELP) vocoder.
- Waveform capability is transparent to the warfighter.
- Minimal impact to fielded radios, some JEMs only require a firmware upgrade, some require hardware and firmware upgrade.
- Minimal operator intervention, waveform sends sufficient information to set up radio services itself.
- Manufacturer implemented for maximum simplicity.
- Ease of use is based upon manufacturer implementation, with limited training requirements.
- Greater access on each channel.
- Flexibility of services on each channel to provide the most bandwidth to each military service.
- Interoperable with DAMA SATCOM.



CURRENT FIRMWARE

AN/PRC-148 FAMILY AND ASSOCIATED PC PROGRAMMERS

TACTICAL RADIOS	Type 1 AN/PRC-148[V]3[C] and [V]4[C] JTRS Enhanced MBITR [JEM] PRC6999	Type 1 AN/PRC-148[V]1[C] and [V]2[C] MBITR PRC6991	Non-Type 1 PRC6809
Current Maritime Receiver / Transmitter Part Number	4101658-511 Maritime, 20m submersible	4101104-501 Maritime	4101422-504 Maritime
Current Urban Part Number	4101660-510 Urban, 2m submersible	4101195-501 Urban	4101349-502 Urban
Firmware Version & Revision	Version 07.00.14.0286	Version 2.40 Revision AE	Version 1.18 Revision G
PCCT / PC Programmer Part Number & Revision	MA6941N Version 05.00.00.0016 This PCCT Version MUST be used to upgrade JEM firmware to Version 7.	MA6941F Version 1.10 Revision K	MA6941L Version 1.06 Revision D
PCCT / PC Programmer User's Manual & Revision	84358 Revision J	84333 Revision H	84262 Revision E
Radio Operator's Manual & Revision	84357 Revision H	84329 Revision H	84345 Revision D
IW Operator's Manual Addendum & Revision	84428 Revision A		
Quick Reference Guide [QRG] Number & Revision	3400905 Revision E	3400577 Revision H	3400738 Revision C
IW QRG Number & Revision	3400905-3 Revision A		
IW Booklet Number & Revision	84430 Revision A		
	The JEM firmware version is briefly displayed at the end of the powered on Built-In-Test cycle. The PCCT firmware version is displayed from the PCCT Help menu.	The MBITR firmware version is briefly displayed at the end of the powered on Built-In-Test cycle. The PC Programmer firmware version is displayed from the PC Programmer Help menu.	The PRC6809 firmware version is briefly displayed at the end of the powered on Built-In-Test cycle. The PC Programmer firmware version is displayed from the PC Programmer Help menu.
	PC Configuration Toolkit [PCCT] Cable, part number 1100592-501, is required to upgrade JEM firmware via a USB port on a PC running Windows XP, Vista or Windows 7	PC Programmer Cable, part number 3500393-501, is required to upgrade firmware of MBITRs and PRC6809s via an RS-232 serial port on a PC running Windows XP	

ALL FIRMWARE IS SUBJECT TO CHANGE



CURRENT FIRMWARE

THALES 25, LIBERTY & ASSOCIATED PC PROGRAMMERS

PUBLIC SAFETY RADIOS	Thales 25 Project 25 VHF Handheld	Liberty Multiband Land Mobile Radio (LMR)
Receiver / Transmitter 'brick' Part Number	4101256-xxx can be 501, 503 or 505	4102023-502 Intrinsic Safe
Firmware Version & Revision	Version 8.3 for -503 and up Version 5.13 for -501	Version 05.05.10.0110 Revision B
PC Programmer Part Number & Revision	MA6941C Version 5.0 Revision H	MA6941U Version 05.05.01.0148 Revision C This Version MUST be used to upgrade Liberty firmware to Version 5.5.
PCCT / PC Programmer User's Manual & Revision	84330 Revision H	84404 Revision C
Radio Operator's Manual & Revision	84326 Revision G	84382 Revision A
Quick Reference Guide Number & Revision	3400539-1 Revision D	3401448 Revision B
PCCT / PC Programmer User's Manual & Revision	The T25 radio's firmware version is briefly displayed at the end of the powered on Built-In-Test cycle.	Liberty LMR firmware version is displayed after the radio is powered on displaying the Statue of Liberty screen.
	Programming Cable, part number 85302, is required to upgrade firmware of Thales 25 via an RS-232 serial port on a PC running Windows XP	Programming Cable Kit, part number 3100965-501, is required to upgrade Liberty firmware via a USB port on a PC running Windows XP, Vista or Windows 7

ALL FIRMWARE IS SUBJECT TO CHANGE

CURRENT FIRMWARE

RF POWER AMPLIFIERS FOR THE AN/PRC-148 FAMILY

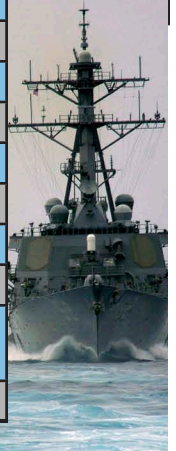
	Equipment	Part Number	Firmware Version
MA6943	Vehicle Adapter [VA]	4101524-501	Version 1.10 Revision G
	Vehicle Adapter Exciter [VAE]	4101849-501	Version 1.05 Revision F
	50W Power Amplifier [PA]	1600674-x [there are multiple variants]	Version 02.01.00 Revision D
MA7135	Low Profile Vehicle Adapter [LPVA]	4102214-502	Version 03.01 Revision D
MA7138	Cradle Vehicle Adapter [CVA]	4102340-501	Version 03.01 Revision F

ALL FIRMWARE IS SUBJECT TO CHANGE



Current Firmware Releases for Naval/Maritime Products

Equipment	Part Number	Software / Firmware Version	
TMR 1090	1kW Linear Power Amplifier	796010-000-001	3.14
TMR 1096	125W Linear Power Amplifier	796012-000-001	2.32
TMR 3302	Dual ALE Modem	799075-001-002	1.68
TMR 4090	1kW Antenna Coupler	798012-000-001	1.00
TMR 4095	125W Whip Antenna Coupler	798011-000-003	2.01
TMR 4096	125W NVIS Antenna Coupler	798013-000-001	3.05
TMR 6490	Remote Control Unit	799070-000-001	7.10
TMR 6491	Remote Control Unit with External Power Supply	799072-000-001	7.10
TMR 8092	HF Transceiver	794054-000-001	2.74
PA8105	500W Power Amplifier	634797-00	0032
PA8109	1kW Power Amplifier	608690-00	0032
ACU51	1kW Antenna Coupler	602229-01	569/602355 V1.0 554/602355 V1.6
MCU6412	Antenna Multi-coupler	604324-01	750013 V2.08



Expanded In-theater Support

Thales' Customer Support Department (CSD) has been working closely with coalition forces, US Army Communications Electronics Command (CECOM) to expand its field support capability to additional locations within Afghanistan. We currently have established maintenance depots at the Regional Support Centers (RSCs) located at Bagram Airbase, Kandahar and Camp Leatherneck, each with permanently assigned Thales field support technicians. We have prepositioned personnel and equipment to establish two additional Afghanistan maintenance sites during CY 2012, Shandand and Shariff RSCs.

Thales continues to support Iraq operations and reset activities at its depot at Camp Arifjan, Kuwait; this maintenance depot provides a key logistics location to support forward operations in both Iraq and Afghanistan.

Each depot site can assist with product maintenance, training, and technical support requests.

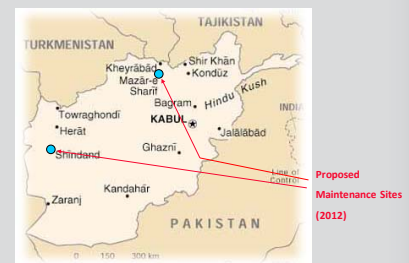
For additional information on specific support requirements or site contact information please email:

afghanistan.support@thalescomminc.com

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Camp Arifjan



Proposed Maintenance Sites (2012)

Grow and Further Your Skills

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Go to **Careers**, Click on **Careers Opportunities**
and Select **View All Open Job Positions**

THALES

WIDEBAND NETWORKING

Thales Wideband Networking Radio

The Thales Wideband Networking Radio (WNR) is a handheld, portable, networked communications unit. It is designed to provide robust voice and data communication in the most challenging RF environments. This unique tactical Mobile Adhoc Networking (MANET) product enables rapid deployment of high throughput networks across the most difficult conditions.

The Thales WNR has been designed to support simultaneous voice, IP data and position location information (PLI) in extremely harsh environments.

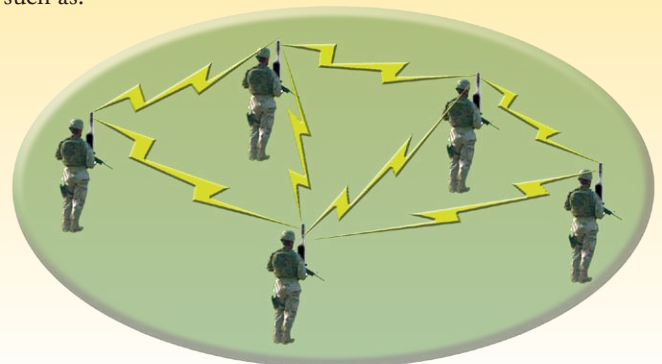
The waveform uses the latest coding techniques paired with an innovative networking approach to achieve a scalable MANET design.

Advanced MANET features such as automatic self forming/self healing networks and voice prompts mean operators do not have to spend time configuring or setting network parameters in the field. Operation is intuitive and transparent to the operator making training fast and simple.

Establish voice/data/video network in severely restricted environments, such as:

- In-ship communications
- Mines or tunnels
- Urban and downtown areas
- Remote sensors
- Beyond line of sight (BLOS) extension
- UGV/UAS robotics communications
- High speed mobile platforms

For more information please contact us at 1-800-914-0303 or customer.service@thalescomminc.com.



THALES GIVES BACK

Supporting Those Who Defend, Protect, and Secure Our Liberty and Homeland

Thales Communications supports many foundations and charitable organizations that sustain our country's warfighters and first responders:

The **Air Force Aid Society**, the official charity of the United States Air Force, promotes the Air Force mission by helping to relieve distress of Air Force members and their families and assisting them to finance their education. It is rooted in the original Army Air Corps and the World War II Army Air Forces, whose members wanted to "take care of their own." For more information, visit <http://www.afas.org>

The **U.S. Air Force TACP Association** has a mission to remember our fallen, to honor the living, and to aid brothers in need. They promote the brotherhood and camaraderie amongst the TACP community by sponsoring, coordinating, and assembling members to celebrate as fellow warriors. They also serve as an informational conduit to the community. For more information, visit <http://usaftacp.org/>

The **Special Operations Warrior Foundation** provides full scholarship grants and educational and family counseling to the surviving children of special operations personnel who die in operational or training missions and immediate financial assistance to severely-wounded special operations personnel and their families. For more information, visit <http://www.specialops.org>

The **Marine Corps Association (MCA) Foundation** oversees programs associated with events for Marines, awards, and acts as the fundraising arm of the Marine Corps Association. MCA's mission is to support the Marine Corps by disseminating knowledge of military art and science among Marines; provide professional development opportunities for Marines; and foster the spirit and preserve the traditions of Marines. For more information, visit <http://mcafdn.org>

The **Marine Corps Scholarship Foundation** provides scholarships for post-high school education to deserving sons and daughters of Marines with particular attention given to children whose parent has been killed or wounded in action. It is the nation's oldest and largest need-based scholarship organization supporting U.S. military families. For more information, visit <http://www.mcsf.org>

The **USO of Metropolitan Washington** is "Serving those who serve, and their families". Every program and service they provide is centered around their desire to give back to the men and women who sacrifice so much for our country. Visit <http://www.usometrodc.org/>



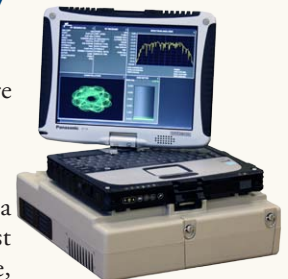
THALES TESTING

AN/PRC-148 and Vehicle Adapter Test Capability

Thales Communications, Inc. can now provide enhanced test capabilities for fielded products. Two testers are now available that can support MBITR, JEM and VA/VAA products.

The ATS3000P is a portable Go/No-Go tester hosted on a ruggedized laptop computer. It provides a consolidated, one-man portable test platform that combines the operational capability of many different test instruments into a single, compact unit. The ATS3000P supports all the requirements of a man-portable, forward deployable communications test set. Its size facilitates easy transfer / movement through vehicular access hatches and its weight allows one person to easily operate in a stand-alone or automated mode.

The ATS3000A is designed for Intermediate level maintenance shops and uses a Synthetic Instrumentation (SI) architecture, combining the functions of traditional instruments into a single, software-defined platform. This provides the user with a complete and compact RF, analog and digital test platform. It can be used as a standalone, or fully automated test system with easy to use graphical user interfaces.



Please contact us at 1-800-914-0303 or customer.service@thalescomminc.com for additional information.

RIFLEMAN RADIO

Thales Receives LRIP Award for the AN/PRC-154 Rifleman Radio

Thales Communications, Inc. announces the award by prime contractor General Dynamics C4 Systems for Low Rate Initial Production (LRIP) of the AN/PRC-154 Rifleman Radio. Developed as part of the Joint Tactical Radio System Handheld, Manpack, and Small Form Fit (JTRS HMS) program with General Dynamics, the Rifleman Radio is a lightweight, networking, body-worn radio designed to extend the tactical network down to the lowest echelons--the dismounted individual soldier.

In June, the JTRS HMS program received a Milestone C decision from the U.S. Department of Defense, which authorized the Army to procure up to 6,250 Rifleman Radios. Following that decision, General Dynamics received an LRIP contract for 6,250 Rifleman Radios, which will be manufactured by both Thales Communications and General Dynamics. By design, the JTRS HMS System Design and Development and LRIP contract efforts will yield two qualified production sources. This provides the Government with robust competition from multiple qualified sources for full rate production.

A core component of the Army's soldier modernization program, the Rifleman Radio transmits voice and data simultaneously utilizing the Soldier Radio Waveform. The radio is designed to bring secure (Type 2) inter-squad communications to any warfighter on the tactical edge of the battlefield. It creates self-forming, ad hoc, voice, and data networks in any battlefield scenario and enables Team Leaders to track individual soldier position location information, giving dismounted soldiers a much-needed situational awareness capability on the battlefield.

"The Rifleman Radio represents the very latest technology, benefiting from close collaboration with users and rigorous Government testing," said Michael Sheehan, President and CEO of Thales Communications, Inc.

The Rifleman Radio has undergone an extensive series of formal Government tests, including various operational network integration exercises, one of which was an exercise conducted by the 82nd Airborne Division at Fort Bragg. In a follow-up report by the unit's commanding officer, Maj. Gen. James L. Huggins said that the radios performed in "remarkable fashion," effectively filling critical communications gaps that are unmet by current tactical communication systems.

Radio Ready.



JTRS HMS Rifleman Radio is the only radio available today that meets the U.S. Military's security and waveform standards to bring true networking connectivity to the brave men and women on the frontlines.

The Armed Forces have a new network. Time for the right radio.

Out at the edge of the battlefield, Rifleman Radios form on-the-go networks so you can safely talk, text message, chat and send pictures – completely changing the way you communicate. JTRS HMS connects you and your GPS position to the combat network, so the information you need to do your job is readily accessible, and your leaders get information faster.

Get in the network. Carry JTRS HMS. Ask for Rifleman Radio today.

For more information, visit gdc4s.com/RiflemanRadio.

GENERAL DYNAMICS **THALES**

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TRADESHOWS COMING IN 2011

Thales will be participating in the following trade shows:	Date	Location	Booth #
DSEI (Defence & Security Equipment International)	9/13-9/16	London, England	S6-105
U.S. Army Maneuver Warfighting Conference	9/13-9/14	Columbus, GA	3400
Modern Day Marine	9/27-9/29	Quantico, VA	1041
AUSA Annual Meeting and Exposition	10/10-10/12	Washington, DC	7221
IACP Annual Conference (International Association of Chiefs of Police)	10/23-10/25	Chicago, IL	2000
SOFEX 11 Symposium and Exposition (Special Operations Forces)	11/1-11/2	Fort Bragg, NC	P16
APCO Canada Annual Conference	11/6-11/9	Ottawa, Canada	202



FREQUENTLY ASKED QUESTIONS

GENERAL QUESTIONS:

Q: Where on the website can I find the programming software and firmware for my radios?

A: You must register on our website www.thalescomminc.com via the Customer Support Customer Sign-in link on the left side of the main page. Please ensure you select the appropriate area of interest; either 'Tactical Communications' for the AN/PRC-148 family, 'Public Safety' for the Thales 25 hand held radio, 'Liberty Radio', for our multiband land mobile radio [LMR] or 'Naval' for our range of maritime HF products.

Approval is not automatic. All requests are reviewed. After approval an acknowledgement e-mail is sent.

Users can then sign-in on the web site, navigate to 'Technical Resources' and download Operator's Manuals, training presentations, radio firmware upgrades and other resources.

Users of the tactical AN/PRC-148 family must register with a .mil e-mail address.

AN/PRC-148 FAMILY QUESTIONS:

Q: What does 'NO PJC' flashing on my radio mean?

A: You have a JTRS Enhanced MBITR [= JEM] that has lost its Private Josecki Component [PJC] 'initialization' or encryption master key. Please see the PJC user notice by following the link below; this explains the problem in more detail and gives you guidance on obtaining the

appropriate PJC key via your COMSEC / EKMS Manager.

https://secure.thalescomminc.com/datasheets/JEM_User_Notification_NO_PJC.pdf

The PJC key is needed for all encrypted operations with the JEM. Without PJC only Plain Text or Retransmission operations are possible. The User Notice also explains why 'NO PJC' is displayed = discharged HUB!

PLEASE NOTE There is a new PJC for firmware Release 7, short title = USKAE B1001 Edition 1. JEM firmware cannot be downgraded to use the previous PJC, therefore the new PJC must be available before starting the firmware upgrade; the new PJC must be loaded after the upgrade.

FREQUENTLY ASKED QUESTIONS CONTINUED

Q: What type of antenna is best for my PRC-148 handheld for Line-Of-Sight [LOS] communications?

A: The maximum transmitter power output of the PRC-148 handheld radio is 5W. When using the handheld for LOS communications, please ensure you are using the correct antenna. For SINGARS, 30 to 88MHz operations, use the blade antenna part number 1600629-1. We understand the need to keep a low profile and, because of this, many users incorrectly use this antenna folded. Increased range can be achieved when the antenna is fully unfolded.

We are aware of users who have a wire antenna threaded through their gear for SINGARS; this may be satisfactory at some frequencies but we do not recommend it. We have a shorter, 22" long dual band whip, part number 1600707-1, for 30 to 88MHz and 225 to 512MHz operations. Please note, the metal of the PRC-148 chassis provides the ground plane for the screw-on antenna; using an extension coaxial antenna cable introduces losses, that is, reduces communication distance.

The 13.1" long 'rubber-ducky' antenna, part number 1600500-1, is best for LOS operations in the 90 to 512MHz range. These two antennas cannot be used in SATCOM operations.

For LOS communication the best way to determine communication range is to use one of many LOS calculators available online, such as <http://www.qsl.net/kd4sai/distance.html> which takes the height of the receive and the transmit antennae and provides an approximate range. Increasing transmit power using an external amplifier such as our Man Portable System will also increase range, but antenna height is the main determining factor.

Q: What type of antenna is best for my PRC-148 handheld for SATCOM?

A: With 5W maximum transmitter power output of the PRC-148, satellite communication can be established with a suitable directional antenna with more

than +7dBi gain, such as the Trivec Avant AV-2055-3 with +10.5dBi gain between 240 and 320MHz. On the receive side every dB counts. For vehicle use the Trivec Avant AV-2090-10, mag-mount X-wing has +8dBi gain.

Q: What is a TRSEC alarm?

A: The radio is stating that a SINGARS Frequency Hopping (FH) channel is programmed but the radio does not have TRANSEC information loaded. TRANSEC is usually part of a MODE 23 COMSEC fill. Assuming the radio has the latest firmware, establish contact with your COMSEC / EKMS Manager to confirm TRANSEC is part of the fill.

Q: Why is MBITR SINGARS time drifting?

A: Most likely the MBITR does not have firmware Version 2.36 or higher. Operationally, ensure the radios maintain time synchronization with other users on the SINGARS net.

Q: What if I don't know the password for my JEM radio?

A: For guidance refer to the Operator's Manual, Number 84357 Revision H, paragraphs 2.3.4.1.4 and 4.7. After reloading PJC, the radio asks if you want to Reset the Default Password to 'THALES1', press 'ENT' for Yes at this screen. Press 'ENT' quickly because this screen only shows for about 10 seconds, then assumes your answer was no.

You can then change the password to whatever you'd like. To do this you can hold 'ALT', press 'MODE' press 'ENT' on 'PROGRAM' press 'ENT' on 'GLOBAL' arrow down to 'CHG PC PW'. Then it's just like changing the password on a computer, you enter the default password, then the new password twice.

After you've done this you can put the radio in PC Toolkit Session Receive Ready mode by pressing 'ESC' until you get back to your Default Display, then press the 'MODE' button, arrow down to the 'SW UPDATE OFF' and change to 'SW UPDATE ON', then enter the password.

Q: What is the MBITR to JEM Upgrade/Exchange Program?

A: Turn in your MBITRs and receive a credit towards the purchase of new JTRS Enhanced MBITRs = JEMs with extended warranty. Please contact aftermarket.support@thalescomminc.com for more information.

A JEM looks almost identical to an MBITR but has increased capability. JEM features include:

- Over-the-Air-Cloning (OTAC)
- APCO Project 25 with AES
- MELP (Mixed Excitation Linear Predictive), improves voice quality in ANDVT narrowband SATCOM
- High Throughput Waveform (HTW), 56kbs data
- SINGARS FH2
- Integrated Waveform (IW) SATCOM, IW is an enhancement to DAMA and is available in the new JEM firmware release.

The JEM also offers enhanced operational features, such as:

- FIPS 198 Authentication
- JEMs can accept 20 TEKs as opposed to an MBITR's six. The TEKs can also be labeled
- JEMs have 256 Programmable Channels as opposed to an MBITR's 100
- JEMs have 16 programmable groups as opposed to an MBITR's 10
- The programmable side buttons can now be configured through the JEM's keypad

Q: How do I know what features are enabled on my radio?

A: Press and hold the 'ALT' key, press 'MODE' key, arrow down to 'MAINTENANCE' then arrow down to 'OPTIONS'; the enabled features are displayed.

The **Customer Support Department** 24/7 Call Support Center



Customers who call the Customer Service 1-800 number are now given three (3) options to properly route their requests: **Technical Assistance**, **Repairs/Product Support** and **Aftermarket Support/Sales**. Incoming calls are routed to the appropriate Customer Service Specialist to ensure all inquiries are addressed as quickly as possible.

To contact Customer Service, please call us at:

1-800-914-0303

(For International Customers: +1-240-864-7643)

Option 1.

TECHNICAL assistance and general inquiries
technical.support@thalescomminc.com

Option 2.

REPAIRS Return Material Authorizations (RMAs) and other product support assistance
product.support@thalescomminc.com

Option 3.

SALES for spares and ancillary items, to request quotes and make purchases, web site/shopping cart assistance
aftermarket.support@thalescomminc.com

ABOUT THALES COMMUNICATIONS

Thales Communications is a global leader in the development, manufacture, and support of battle-proven, software-defined, radio equipment and solutions. We serve the ground, naval, airborne, and homeland security domains with tactical electronic equipment and information systems that address the technological and environmental challenges presented in real-world situations—especially those with size, weight, and power constraints. Serving the U.S. Department of Defense, U.S. Department of Homeland Security, U.S. civilian agencies, and allied and coalition forces globally, Thales Communications plays a direct role in the Global War on Terror.

Thales Communications' headquarters campus in Clarksburg, Maryland, and second location in Germantown, Maryland, house two state-of-the-art manufacturing plants as well as our 24/7 Customer Support Department. We also provide in-theater support to US and Coalition Forces in Kuwait, Iraq and Afghanistan.

Facilities



HEADQUARTERS
Clarksburg, Maryland



Clarksburg, Maryland



Clarksburg, Maryland



Germantown, Maryland

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