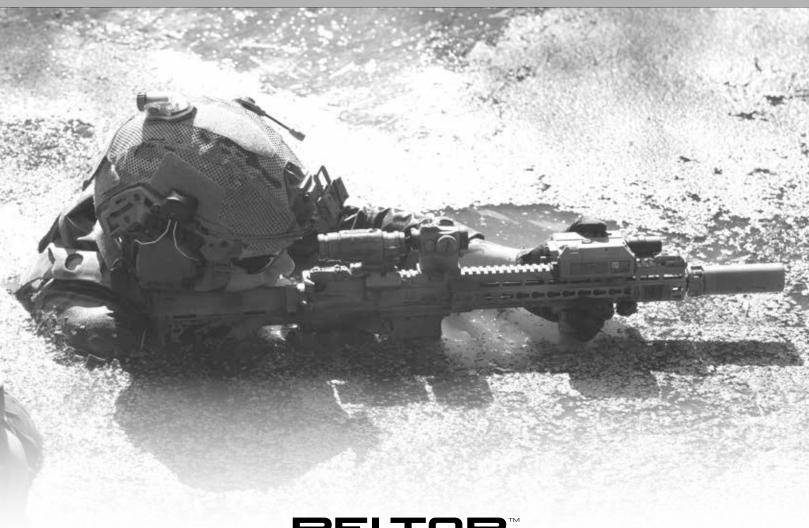


- Hearing Protection Tactical Radio Communications
- Environmental Listening Face-to-Face Communications
  - Hearing Conservation





## PELTOR

We strive to set the standard for confidence and trust by providing rugged, reliable protective communication equipment. Today, our Tactical Communication and Hearing Protection solutions are widely used within the Department of Defense, Department of Justice, Department of Homeland Security, and across U.S. state and local agencies.

3M PELTOR™ solutions for today's modern warfighter have been designed for use in combat and combat support operations, specifically for use with firearms and ballistic combat helmets. The hearing protectors feature external microphones for environmental listening (aka: "Talk-Through") capability, so operators can maintain auditory situational awareness while still protecting their hearing.

You protect us. And we thank you by committing to continue to supply protective equipment.

# Solutions for Conventional Forces



- Protection from Hazardous Steady-State and Impulse Noise
- Clear, Intelligible Two-Way Audio Communications via Radios and Intercoms
  - Environmental Listening for Auditory Situational Awareness
    - "Talk-Through" for Face-to-Face Verbal Conversation

## Tactical Communication and Protection System (TCAPS) Devices

3M provides TCAPS devices for today's modern warfighter designed specifically for use with firearms and ballistic combat helmets. The hearing protectors feature external microphones for environmental listening, commonly referred to as "talk-through", so our service members can maintain auditory situational awareness while still protecting their hearing. In the "Hearing Defender" Configuration, there is no connection to two-way radios or intercoms, which can provide significant cost savings and removes unneeded cables where radio communications connection is not required.



**PELTOR™ Tactical Ear Plug TCAPS Hearing Defender Configuration**TEP-100



PELTOR™ COMTAC III
TCAPS Hearing Defender Configuration
MT17H682FB-09 CY
MT17H682BB-09 CY



## **Hearing Protection**

3M<sup>™</sup> PELTOR<sup>™</sup> COMTAC Tactical Communication Headset and 3M<sup>™</sup> PELTOR<sup>™</sup> Tactical Earplug TEP-100 meet the single hearing protection requirement listed in DA PAM 40-501 Army Hearing Conservation Program 2015 for both steady-state and impulse noise. The hearing protectors are tested in accordance to ANSI S3.19-1974 for Steady-State Noise Attenuation and ANSI S12.42-2010 – for impulse noise protection.

## **Compression vs. Clipping**

3M uses compression technology instead of peak clipping to handle hazardous noise that strikes the environmental microphones. Peak clipping can result in parts of a speech signal being cut off. Compression technology resolves that issue and can dramatically improve speech intelligibility.

## **Addressing the Hearing Impaired**

While hearing aids offer significant assistance to service members with hearing loss, hearing aids cannot be worn in hazardous noise environments. TCAPS products, **although not medical devices**, do offer some amplification while helping protect hearing in noisy environments.

## Environmental Listening – aka: "Talk-Through"

Environmental Listening is a means of allowing safe audio sounds to bypass the individual hearing protection while still protecting against harmful noises. This is accomplished with a proprietary digital audio circuit integrated into the headset.

A microphone receives the sounds outside the headset and transmits them to a speaker inside the headset. The Level-Dependent digital audio circuit senses noise levels above the desired threshhold and compresses them to a safe decibel level or amplifies weak sounds to an audible level.







## 3M™ PELTOR™ TEP-100 Earplug

Level-dependent hearing protection for improved auditory situational awareness.

## Rechargeable: Charging contacts recharge the unit while in the case. Li-ion battery provides up to 16 hours of continuous operation. **Button:** Intuitive one-button operation turns unit on, off, and selects volume settings (2). **Microphone Cover:** Helps minimize wind noise. Waterproof (IP67): Innovative design protects microphone against water ingress. Design: Corner radius designed to help soften contact zone and increase comfort. **Cord Connection:** Attachment point for optional earpiece retention cord. (included) **Hearing Protection:** Replaceable communications eartip helps provide hearing protection in noisy environments. Multiple sizes and types designed to fit most ear canals. HARGING STATUS **Portable Charging Compartment:** Up to 16 charges from 3 AA alkaline batteries. **Retention Cord Storage Posts:** Provides convenient and tangle-free storage for earplug retention cord. **Sealing Ring:** Rubber sealing ring helps protect earplugs in wet and dirty environments. (IP67) **Earplug Clips:** Steel clips secure earplugs in case - helps ensure contact for charging. **Micro B USB Charging Port:** USB port for charging earpieces. (cord not included)

## 3M<sup>™</sup> PELTOR<sup>™</sup> COMTAC III Tactical Communication Headset

### **PELTOR COMTAC III Salient Features**

- Environmental Listening
- Steady-State and Impulse Noise Protection
- Two-Way Radio or ICS Communications

## **Configurations**

- COMMS: Single and Dual COMM
- · Suspension: Headband, Back Band and Rail Attachment
- Color: OD Green, Coyote Brown, Foliage Green, Black
- Ear Cushion: Standard or Gel

#### **Ambidextrous Boom Mic**

- Noise-canceling boom mic (that can be mounted on either left or right side by operator)
- Boom angled to minimize interference with helmet and peripheral vision

## **Batteries & Fail Safe**

- 2 AAA Batteries that provide +400 hours of battery life
- External communications and "talk-through" are battery independent for Rx/Tx fail safe. In the unlikely event of electronic failure or battery depletion, external communications will continue to function

## **Environmental**

- MIL-STD-810F, Department of Defense Test Method Standard for Environmental Engineering Considerations and Laboratory Tests
- Submersion: 3 feet, 30 minutes, salt water survivable

### **EMI**

- MIL STD 461E, Department of Defense Interface Standard, Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment
  - CS114, RE101, RE-102-4, RS101, and RS103 requirements

### **Noise Reduction Ratings (NRR)**

- ANSI S3.19-1974
  - COMTAC 3 (Headband version, standard foam cushion): NRR (23) dB
  - COMTAC 3 (Back Band version, standard foam ear cushion): NRR (22)dB

#### **Impulse Noise Protection**

Tested at 168dB in accordance to ANSI S12.42-2010





FL5601-02



HY80A Gel Ear

## 3M™ PELTOR™ Push-To-Talk Adapters

## Push-To-Talk Adapter/Tactical Radio Adapter – AN/PRC-148/152

- MIL-C-55116 6-Pin Connector
- PTT's are designed to fit the size and shape of either hand
- PTT's can be used with a gloved hand
- Designed to reduce accidental activation
- U-174 Headset Connection serves as a break-away connector for removal in emergency situations

## Push-To-Talk Adapter/Vehicle Intercom Adapter – AN/PRC-VIC-3

- The 3M Ground Vehicle Military PTT Headset comes off-the-shelf with a Large Center PTT and an A/B Toggle for Radio/ICS Switching with AP-107 Break Away Vehicle Adapter Connector
- This configuration provides an additional capability for ground vehicle users over the older 3 Position Toggle Position by allowing to Rx/Tx over the long range radio or over the intercom without having to switch out of ICS
- When Toggled to ICS the operator speaks Hot Mic/Vox over the ICS, when the PTT is pressed, the ICS Tx is switched to Tx over the radio



- Designed specifically to support next generation Multi-Channel Radios
- Able to support up to 4 channels
- · Shielded and tested to eliminate cross-talk
- Reversible grip design to accommodate left and right handed operators

Product available through Thales Communications

### **Adapter Cables:**

- AN/VIC 3 Adapter Cable
- 3.5 mm Jack Audio Cable
- FM50/53 Respirator Audio Cable



AN/VIC 3 Adapter Cable



3.5 mm Jack Audio Cable



FM50/53 Respirator Audio Cable



FL5601-02



FL5601-09



## **COMTAC III Kit - National Stock Numbers**

P/N Number	Description	NSN
P/N: 88078-00000	Single COMM – Headband – CY Kit	5965-01-572-7829
P/N: 88079-00000	DUAL COMM – Headband CY Kit	5965-01-572-7797
P/N: 88080-00000	Single COMM – Headband – OD Kit	5965-01-572-7941
P/N: 88081-00000	DUAL COMM – Headband – OD Kit	5965-01-572-7946
P/N: 88060-00000	Single COMM – Back band – TCAPS Kit	5965-01-620-1182
P/N: MT31	Boom Mic Spare	5965-01-572-7803



# Solutions for Special Operation Forces



- Integrated Helmet Rail Attachment Option
  - Maritime Variant Option
- Interoperable ("Plug n' Play") on Common SOF Aviation and Ground Mobility Platforms
  - Engineered to Prevent Cross-talk in DUAL COMM Configurations

## **COMTAC III SOF ARC Configuration**

#### **Heat Relief**

The ability to have an "open" position of the headset allows the user to ventilate in high-heat environments but can still monitor communications in low-noise environments

#### **Removed Pressure Points**

Removal of headset band and optional eyewear goggle strap eliminates known pressure points

## Stability & Balance

In the "closed" position, the ear cups will compress against the head providing additional stability for full head movement

## **Easy Donning/Doffing**

In the "open" position, the operator can easily don/doff the helmet/headset, and adjust for proper fit

## **Tested and Approved**

Headset and helmet tested as a system by USSOCOM for protection against steady-state and impulse noise



## **USSOCOM Urban Push-To-Talk**

- MIL-C-9177 U94/A PTT
- Switching mechanism to prevent cross-talk
- Molle Clip
- 19" Custom Length
- MIL-C-55116 6-Pin Connector
- PTT's are designed to fit the size and shape of either hand
- PTT's can be used with a gloved hand
- U-174 Headset Connection serves as a break-away connector for removal in emergency situations
- Tested for cross-talk in DUAL COMM Configuration







**COMTAC H20 Maritime Configuration** 

System sold exclusively through Atlantic Signal

- 3M™ PELTOR™ COMTAC-M Headset is a maritime version of its COTS COMTAC platform, designed for combat swimmer needs for Special Operation Forces Maritime missions
- System is designed to meet USSOCOM Maritime requirements
- NEW Maritime Rated Boom MIC
- NEW Environmental Microphones
- NEW In-line, Quick Disconnect wet mate-able Connector
- Interfaces to the Atlantic Signal Maritime Push-to-Talk for connection to Maritime Communication Assets
- · Headband, Back Band, and ARC Configurations
- · Coyote Brown and OD Green





## **COMTAC IV Hybrid Communication Headset**

Same features and functionality as COMTAC III

- Hybrid approach addresses customer demand for in-ear hearing protection while retaining the advantage of the COMTAC III over-the-ear style
- Headband mechanically stabilizes the headset to relieve issues of earplugs dislodging due to cable snags and body movement
- Electronics are contained completely inside the headset housing, eliminating the need for a large, heavy radio control push-to-talk
- Headsets are backwards compatible with pre-existing PTT adapters
- Same operation as current PELTOR COMTAC Headsets
- No software loads or outside power required







## **USSOCOM – National Stock Numbers**

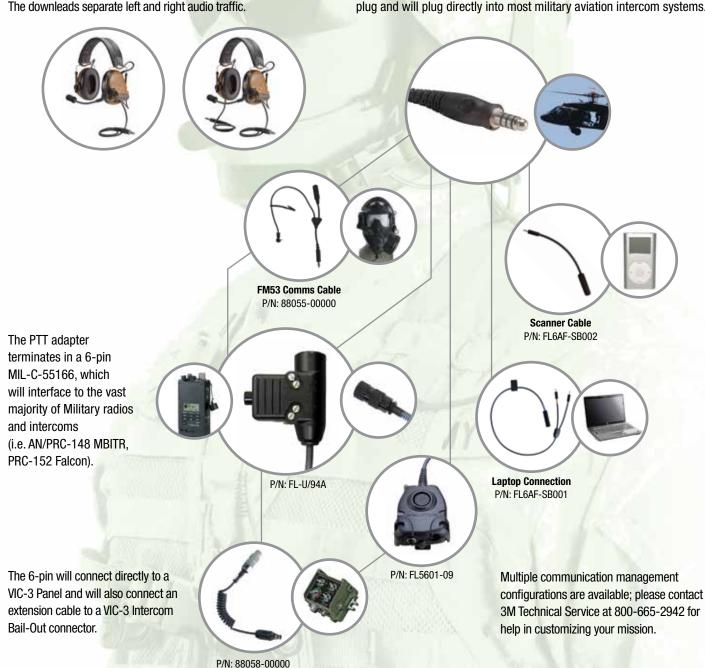
P/N Number	Description	NSN
P/N: 88900-00000	Single COMM – SOF Kit – CY	5895-01-598-4532
P/N: 88901-00000	DUAL COMM – SOF Kit – CY	5895-01-598-4531
P/N: 88078-ARC	Single COMM – SOF ARC Kit – CY* *Helmet Not Included	5895-01-624-0377
P/N: 88079-ARC	DUAL COMM – SOF ARC Kit – CY* *Helmet Not Included	5895-01-624-0390
P/N: 88403-00000	Single COMM – SOF Kit – CY	5895-01-624-0382
P/N: 88404-00000	DUAL COMM – SOF Kit – CY	5895-01-624-0387



## **Communications Management**

COMTAC III and COMTAC IV both have Single and Dual Comm variants for streamline cable management. The downleads separate left and right audio traffic.

Each COMTAC downlead terminates in a standard U/174 NATO wired "Quick Disconnect" plug. The U/174 Plug is a standard military aviation plug and will plug directly into most military aviation intercom systems.



PELTOR

## **COMTAC/SWAT-TAC Product Reference Selector**

Use the options below to identify which COMTAC headset may be preferred for your application. Multiple communication management configurations are available; please contact 3M Technical Service at 800-665-2942 for help in customizing your mission.











- AN/PRC-148 MBITR
- AN/PRC-150, 152 Falcon Series
- Motorola Series
- AN/VIC-3
- AN/PRC-117, 119
- AN/PRC-153

Note: For unlisted radios or intercoms, contact 3M Technical Assistance.



\* Available for COMTAC II ACH headset only



## **COMTAC/SWAT-TAC Kit Part Number Selector**

Use the categories below to identify which COMTAC headset part # to use for ordering purposes. COMTAC headsets and accessories can be bought separately. If your configuration is not identified here, please call 3M Technical Assistance at 800-665-2942.

Pre-assembled COMTAC kits include: headset, adapter (PTT), bag, batteries and gel ear cushions. Headband kits also include two Oblong ZORBIUM® ACTION PADS (ZAPTM) to accommodate headband headset integration within ground combat helmets.

COMTAC ACH	COMTAC IV	Single Comm (1 PTT)	Dual Comm (2 PTT's)	Foliage Green	Covert Black	Coyote Brown	OD Green	PRC/153 Motorola® XTS Series	AN/PRC- 148, 150, 152, 119, 117	Part # Prefix (Suffix at bottom of table)
•		•		•					•	88060-
•			•	•	•	•			•	88061-
•		•				•		•		88063-
•		•				•			•	88078-
•			•			•			•	88079-
•		•					•		•	88080-
•			•				•		•	88081-
	•	•				•			•	88403-
	•		•			•			•	88404-

Part # suffix options:

-00000 headband kit

-B back band kit

-ARC Arc Rail attachment

(valid part # example: 88060-00000)



#### **Product Classifications**

Our products commonly meet government procurement requirements in most applications. Contact your 3M Sales Representative or Customer Service Representative to obtain product certifications for the following:

- Buy American Act for Department of Defense
- Trade Agreement Act
- Berry Amendment
- Product classified as ECCN: 5A991.G

#### **AWARNING**

#### **Hearing Protection Products\***

Caution: When worn according to the User Instructions, this hearing protector helps reduce exposure to both continuous noises, such as industrial noises and noises from vehicles and aircraft, as well as very loud impulse noises, such as gunfire. It is difficult to predict the required and/or actual hearing protection obtained during exposure to impulse noises. For gunfire, the weapon type, number of rounds fired, proper selection, fit and use of hearing protection, proper care of hearing protection, and other variables will impact performance. If your hearing seems dulled or you hear a ringing or buzzing during or after any noise exposure (including gunfire), or for any other reason you suspect a hearing problem, your hearing may be at risk. To learn more about hearing protection for impulse noise, visit www.3M.com/hearing.

Choking Hazard—Keep away from infants and small children. These hearing protectors help reduce exposure to hazardous noise and other loud sounds. Misuse or failure to wear hearing protectors at all times that you are exposed to noise may result in hearing loss or injury. For proper use, see supervisor, User Instructions, or call 3M PSD Technical Service in the USA at 1-800-243-4630. In Canada, call Technical Service at 1-800-267-4414. If there is any drainage from your ear or you have an ear infection, consult with your physician before wearing earplugs. Failure to do so may result in hearing loss or injury.



#### In U.S.

Technical Assistance Customer Care Center 3M.com/PPESafety 1-800-328-1667

#### In Canada

Technical Assistance Customer Care 1-800-267-4414 1-800-364-3577 3M.ca/PPESafety



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