Interagency Aviation TECH BULLETIN

Subject: TDFM-136A Radio Problems

Distribution: All Aviation Users

ISSUE: SAFECOM system reports indicate a trend of failures and other problems with the TDFM-136A radios serial numbers FDA1427 and below. SAFECOMs have reported smoke coming from the radio or the smell of hot electrical type wires (SAFECOMs 10-446, 10-538, 10-564 and 10-648; and that flight crews experienced issues while programming the new radio (SAFECOM 10-462, plus several informal reports to NIFC).

DISCUSSION:

Radio "Hard Failure" while in flight

Technisonic Industries Ltd. Issued a Service Bulletin SBFM 03.1-01 on May 17, 2010 describing a preventive repair against "Hard Failures" that destroys a small circuit board mounted on the rear of the on/off switch (which is where the smoke comes from). Accomplishing the repair work identified in SBFM 03.1-01 prevents the Hard Failure from occurring. This Service Bulletin affects approximately 400 TDFM-136A radios (SN FDA1427 and below) and as of this writing only 25% of the stock has received the preventive repair. TDFM-136 radios (no "A") are not effected by SBFM 03.1-01 and TDFM-136A radios SN FDA1428 and above have this SB incorporated into them at the factory.

Technisonic is aware of the issues surrounding this problem and they realize many people will not send in their radios for SBFM03.1-01 until after field season or following the actual failure of the radio. Technisonics has a limited loaner pool of replacement radios to support the TDFM-136A radios that experience hard failures.

If a hard failure occurs in flight, pilots should follow the aircraft flight manual instructions for emergency procedures.

Radio displays "Boot Up Error" when first turned on.

This indicates the Thales RF board software does not communicate with the Technisonic radio software. Technisonic and Radio Masters, Inc. (subsidiary of Dallas Avionics, Inc.) are loading 3.0.1 boot code software on applicable radios during any repairs as a preventative maintenance measure. View radio software on level 3-4. Applicable radios are those with a keyloader connector by the HI/LO power switch.

Radio display corrupted.

Technisonic is unsure of why this is happening, but resetting the radio may eliminate the problem. Correction for the problem is under investigation. A possible solution is for users to use only TDP 2.4.1 software while loading channel information into the radio from a PC. This version of TDP prevents people from creating a conflicting set of programming parameters which could cause the radio display to become corrupted.

What the Owner/Operator should do

It is recommended that SBFM03.1-01 RF board replacement and software upgrades be completed by Technisonic Industries, Inc., or Radio Masters, Inc. by Dec 31, 2010 on all TDFM-136A radios. This allows for the operators to rotate their radios in for repair during the off season.

A mandatory SBFM 03.1.01 completion date has not been set by the Department of the Interior or the Forest Service at this time. However, it is highly likely that such a date will be set by both agencies prior to any TDFM-136A use in 2011. It is recommended that any operator of a TDFM-136A radio, subject to SBFM 03.1-01, prepare to show agency inspectors the SB has been complied with. This may be accomplished by producing documentation from Technisonic Industries or Radio Masters indicating completion of SBFM 03.1-01 or showing mod 1 is marked off on the radio's MODIFICATION RECORD placard.

Recommend everyone who programs TDFM-136A radios download TDP 2.4.1 from the following website: http://til.ca/content.php?page=programming-software-TDFM-136.

After installing this software, copy your old .136 files to the new directory. Once the new software is loaded, delete the old TDP program.

Questions regarding this Technical Bulletin should be forwarded to your closest region/area avionics specialist, or call Frank Smith, USFS NIFC 208-387-5648 or Jeff McVey AMD 208-334-9310.

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