

Where's all the pics? Sorry fellas... no copyright, no pics!

this decal sheet. The shark mouths and eyes were also added later on in its life. The Dec 2003 issue of Koku Fan

has some excellent pictures of this jet from the Koku Festival in Ishikawa-ken, Japan,

9/14/03.

F-15J Peace Eagle; MSIP or Not and Other Info.

200

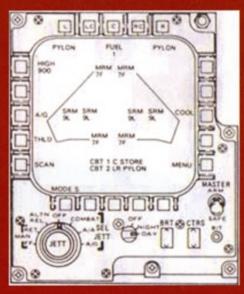
Japanese F-15's were originally delivered with turkey feathers, but these have since been removed, presumably for the same reasons they came off USAF jets; maintenance. The left vertical stab has the smaller mass balance that is carried on the right vertical stab, rather than the larger one that USAF jets use. Since they were delivered without the ALQ-135 ICS, they originally lacked the two small ICS antennas under the cockpit. Recent photos show that **some** jets have been retrofitted with two similar antennas. This is probably part of the F-15J+ program which is modifying 100 of their surviving jets (223 originally delivered of which 14 were U.S. built) to roughly MSIP standards. The TEWS antennas on the wings and vertical stabs are black rather than the white that every other user has. It is also assumed that these jets did not originally have the PACS or chaff/flare and these are post-production retrofits. The JASDF accepted their first jets in '81, before either of those programs were in USAF Eagles. Other modifications in the "Plus" program appear to be engines brought up to 220E standards, the radar modified to APG-63U, roughly equivalent to the USAF APG-63(V)1, a Data Transfer Module (DTM), and the ECM suite is modified to J/APQ-1, which can be visually verified by the antenna on the right tail boom (see pic). The illustration of the PACS panel included shows one of the many displays (armament status) possible on that panel. In USAF use it is inevitably used in flight to show an electronic map (the "sit display") of the area being flown through, and now also includes JTIDS (Mountain Home jets) or FDL (all other F-15 units) data, which is one of the the primary reasons (along with its MIL-STD-1760 bus which allowed AMRAAM carriage) the MPCD was fitted in the first place. The terms "PACS panel", "MPCD", and "Sit Display" are used almost interchangeably in USAF use. Since the Japanese use the PACS panel to display data link info, it is assumed they run around with something similar to the USAF"sit display" selected. Something else worth mentioning is that Japanese jets originally carried the AIM-7F and AIM-9L. The "Lima" has been replaced by the indigenous AAM-3, and evidently the AIM-7F will be replaced by the AAM-4 (Japanese counterpart of the AIM-40).

MSIP in USAF service included the following: modified radar computer and new Central Computer (CC) with vastly increased memories, modified Programmable Signal Data Processor (PSDP), the Programmable Armament Control Set, MPCD, (the PACS was part of the MPCD, which is why the two terms, PACS and MPCD, are used interchangeably), modified throttles, DTM capability, Video Tape Recorder (VTR) split image capability, and modified BIT control panel. Those are the only things that were part of MSIP. Some urban legends out there that get lumped into MSIP through books, etc are the following. Books frequently refer to MSIP I and MSIP II. MSIP I was a paper program only that never got off the ground, so in use the program has always been referred to simply as MSIP. If you bring up MSIP I to any USAF crew member you'll get a blank look. The most frequently given piece of erroneous info is that MSIP changed the radars to APG-70's. This is simply not true. The last forty-three C/D modèls built, which happened to be MSIP jets, did have the APG-70 for one reason only, the USAF (at that time) wasn't buying enough F-15E's to make the APG-70 production run economical, so they bought those extra units and put them in the last C/D models built. Every other A thru D jet brought up to MSIP standards kent the APG-83 (V)1 radars for maintenance MSIP standards kept the APG-63 radar; in fact, those APG-70's have recently been removed and replaced by APG-63(V)1 radars for maintenance reasons, and when they were in service they didn't have the Synthetic Aperature Radar (SAR) ground mapping modes. Some other commonly reasons, and when they were in service they didn't have the Synthetic Aperature Radar (SAR) ground mapping modes. Some other commonly repeated errors involve the time frame various modes were added to the radar. Pre-MSIP jets had Track While scan (TWS) so this is not specific to MSIP upgraded jets. Seek Talk (which supplied Have Quick capability) was not part of MSIP; this was a feature of pre-MSIP jets. It was not referred to as Seek Talk either, it was just Have Quick. The same is true of chaff/flare capability and the OWS; they pre date MSIP. The change from the ALR-56A to the 56C was also another program that was coincident with, but not part of MSIP. The F-15E stick grip came after MSIP was finished and was added primarily to allow HOTAS control of the "sit display." The antenna on the right tail boom (eventually applied to all C models and a few D models, but not A/B versions) was part of a modification to the EW system that was also coincident with, but not part of MSIP. It does make it easier to spot a MSIP C model though. GPS will be coming to the jet soon, and it will be interesting to see if the JASDF adopts this modification.

A/C 72-8963 which is represented on this sheet is a Mitsubishi Heavy Industries manufactured A/C, built under license from McDonnell Douglas. In addition to having some version of MSIP that is explained in the previous text, this A/C also carries the J/ALQ-8 active jammer (AN/ALQ-135 replacement), J/APQ-1 Radar Warning Receiver, and is powered by the F100-IHI-220E motor. The arresting hook fairing is also retained. This was removed from USAF F-15A/Ds in the early '90s. It is important to note that all modifications that the JASDF have incorporated into their Peace Eagle aircraft are totally indigenous to them. They are in charge of all aircraft configuration control and Boeing (McDonnell Douglas) only provides technical and product support for the generic F-15 airframe.

This information was graciously provided by Tom "Eeyore" Murphy and Darren "Shead" McTee, both of these gentlemen were previously USAF F-15 pilots. Bruce Schreiber and the F-15J Peace Eagle Programs Office also provided valuable information on this specific aircraft. Http://www.F-15J.com is also a great site for references on all the JASDF F-15s.

Thanks to all of them for the absolutely GREAT help on this sheet!



963

AN/AWG-20 PACS **Programmable Armament Control Set**



J/APQ-1 Radar Warning Receiver Antenna



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