MC-130E Serial No: 64-0568 The MC-130E has for decades been the workhorse of the Special Operations Forces (SOF), when personnel and or equipment need to be flown into denied territory. This aircraft is a highly modified version of the venerable C-130E. The airframe itself was strengthened to permit the opening of the rear ramp at speeds as high as 250 knots, allowing cargo to be dropped without the need for slowing down and exposing the aircraft to further threats. Personnel however still were required to be dropped at a lower speed. The engines in the 70's were upgraded to the –15 power plants and an aerial refueling receptacle added. In the 1990's the aircraft were upgraded with the latest state-of-the-art equipment. This program was known as the Mod 90. Aircraft were equipped with the AN/APQ-122(V)-8 terrain following radar, 60-90 kva generators, a fully integrated navigation suite, AN/ALQ-117 radar jammer, AN/ALE-40 chaff/flare dispensers, and more. Subsequent modifications included provisions for the use of Night Vision Goggles (NVG's), in addition to the retractable FLIR carried and GPS enhanced navigation capabilities.

In 1996 the Fulton STAR recovery system was deleted from those aircraft equipped. This was done after the SOF helicopter fleet was equipped with an in-flight refueling capability. The most notable visible change is the deletion of the Fulton forks although the modified nose radome is retained. Over the life of the system no combat recovery of personnel by the Fulton system was performed. Routinely the crews had trained using 250 lb dummies; although, live pick-ups were made. A few attempts resulted in deaths to the individual being hoisted aboard which may have contributed to the termination decision.

With the use of in-flight refuelable helicopters the SOF forces found a need for a tanker that could penetrate hostile airspace to perform the refueling. The MC-130E was subsequently modified to permit carriage of a refueling pod under each wing. This permitted the refueling of two helicopters simultaneously. The MC-130E along with the MC-130H and now the CV-22 are the only fixed wing aircraft used by the Air Force to penetrate denied airspace and land personnel and supplies on improvised airfields unaided.

The Air Force Reserve 711th Special Operations Squadron (SOS) of the 919th Special Operations Wing received the MC-130E in 1995 when the AC-130A's the unit flew were retired. For a time the 8th SOS, an active duty unit which had given up its MC-130's while waiting for the CV-22B flew as an associate unit assigned to the 919th. This was the reverse of most associate programs where the aircraft are assigned to active duty unit with the associate squadrons being reserve organizations providing air and ground crews only. This particular airframe was involved in the Grenada student evacuation mission with the call sign Foxtrot 35.

Notes for modelers: Since it is a special mission aircraft, the antenna fit and type, particularly on the unusual "beaver" tail, of this MC-130 were different from conventional mission C-130's. Chaff/flare dispensers and a prominent GPS display on top of the instrument panel coaming will also need to be added. The rear ramp also added an internal fairing on each side to permit higher speed drops. A comprehensive walkaround of this particular aircraft, including interior photos and the various external modifications needed, is available online at www.primeportal.net.

Paint Keys: Basic flight deck color is matte black for NVG purposes to include the instrument panel, the coaming, floor, walls, roof, overhead consoles, and the crew seats. The seats have "wool" covered black seat cushions and back pads, with black leather head and arm rests for the pilot and copilot, FE, navigators, and load masters. Lap belts and shoulder harnesses are green-gray. Control yokes are matte black with well worn semi-gloss black control wheels. The basic color of the cargo compartment is matte black with much of it covered with padding dyed to match. Troop seats are tubular, matte aluminum frames covered with red-orange (roughly FS #31400) webbing. Lap belts for the troop seats are a dirty, light gray. The wheel wells, gear door interiors, landing gear, and wheels are painted gray FS #36293 to match the aircraft undersurfaces. Prop hubs and cuffs are matte black, with the rest of the propeller in dull natural metal; the prop tip stripes are matte black.

MC-130H Serial No: 89-0283 The MC-130H was developed and fielded to supplement the MC-130E fleet, when it was found that their mission requirements exceeded the number of aircraft available. Consequently 25 new build aircraft were delivered during the 1990's. This aircraft is configured much the same as the MC-130E but with more advanced systems. The airframe is designed for airdrop operations at higher speeds, is in-flight refuelable, includes provisions for helicopter refueling pods, etc. The most noticeable feature of this aircraft is the elongated boxy looking nose that houses an advanced AN/APQ-170 multi-mode radar. Additionally the FLIR was moved from a retractable unit located behind the nose gear well forward to a non-retractable installation under the new radome. This allowed FLIR operation with the wheels down a capability earlier MC-130E's lack.

The Combat Talon II is the first SOF dedicated C-130 to incorporate a glass cockpit with two multi-function displays at both the pilot and copilot stations along with additional displays for the navigator and electronic warfare officer. These displays are driven by a computerized system that integrates the many navigation, communication and defensive equipment found on the aircraft. Additionally this is the first MC-130 to move all flight crew stations (except loadmasters) into the cockpit freeing the entire cargo bay for use in transporting personnel and equipment. Systems on the aircraft include the APQ-170 radar, AN/ALQ-15 FLIR, AN/ALG-172 jammer, AN/AAR-44 missile warning system and in recent years the Directed InfraRed Counter Measures system. All this is in addition to any external

MC-130H Contn'd

ECM pods that may be carried.

The mission of the Combat Talon II, like the Talon I, is to infiltrate and exfiltrate personnel and equipment into denied territory using airdrop or airland operations. Other missions included up until 2008 the dropping of BLU-82 15,000 pound "daisy cutter" bombs. These weapons had a shelf life of one year and a live unit was dropped every six months to expend bombs that were reaching the end of their lives. Another mission of these aircraft was the air dropping of leaflets. Most notably this was performed by crews of the 7th SOS during operation Allied Force in the Balkans. This required crews to depressurize the aircraft at 30,000 ft and don oxygen masks during these missions.

As part of the 15 Special Operations Squadron our subject aircraft is based at Hurlburt Field in Florida. The 15 SOS history begins with the 18th Observation Squadron, activated February 1942 at Dover, Del, then redesignated the 15th Antisubmarine Squadron (Heavy) November 1942, and assigned to the 26th Antisubmarine Wing, Miami, Fla. The primary operational aircraft of the 15th was the B-24 till September 1943. The squadron lineage then passed to the 15th Bomb Squadron (Very Heavy), which was activated in June 1944, at Dalhart Army Airfield, Texas. The unit was equipped with specially modified B-29s, stripped of armament, except for tail guns, and fitted with the AN/APQ-7 "Eagle" radar. This new and experimental radar permitted the bombing of targets through zero visibility. This unit was disbanded in August 1945. Twenty three years later the 15th Air Commando Squadron was created March 15, 1968, at Nha Trang Air Base, Vietnam, and assigned to the 14th Air Commando Wing. The unit was equipped with four UWC-130Es; however, it was inactivated Oct. 31, 1970. The 15 SOS was reactivated Oct. 1, 1992 at Hurlburt Field. The unit has since supported more than 24 readiness exercises, eight real world deployments, and successfully completed the first around-the-world deployment of a single Combat Talon II, and pioneered the first-ever formation flying techniques under special operations conditions involving both Combat Talons I and II.

Notes for modelers: As a special mission aircraft, the antenna fit of this type of MC-130 was different from conventional mission C-130's. Photos should be checked for the appropriate configuration. Chaff/flare dispensers and the DIRCM installation will also need to be added along with any ECM or refueling pods the modeler might want to include.

Color keys: Paint Keys: Basic flight deck color, including the navigator's station, is Dark Gull Gray FS #36231, to include the instrument panel, floor, walls, roof, and seats. The seat head and arm rests are medium gray leather, close to FS #36173 with "wool" black seat cushions and back pads, while the lap belts and shoulder harnesses are gray-green. The overhead consoles, and instrument panel coaming are matte black. Control yokes are a light

MH-53M Contn'd

green close to FS #34300 with semi-gloss black control wheels and medium tan "boots." The basic color of the cargo compartment is Dark Gull Gray, with much of it covered in padding dyed to match. The floor is also covered with numerous matte black anti-skid strips. Troop seats are tubular, matte aluminum frames covered with red-orange (roughly FS #31400) webbing. Lap belts for the troop seats are a dirty, light gray. The wheel wells, gear door interiors, and landing gear are painted gray FS#36293 and the wheels semi-gloss black. Prop hubs and cuffs are matte black, with the rest of the propeller in dull natural metal; the prop tip stripes are matte black as is the FLIR turret.

MH-53M Serial No: 68-10357: The Sikorsky MH-53M Pave Low IV was developed from the Vietnam era HH-53. The HH-53 "Super Jolly Green Giant," itself was the USAF version of the Navy's CH-53 Sea Stallion helicopter, which the Air Force modified for long-range combat search and rescue (CSAR) missions; these were later upgraded as the MH-53 Pave Low series. The Pave Low's mission is low-level, long-range, undetected penetration into denied areas, day or night, in adverse weather, for infiltration, exfiltration, and resupply of special operations forces. Pave Lows often work in conjunction with MC-130H Combat Talon for navigation, communications and combat support, and with MC-130P Combat Shadow for inflight refueling.

While the USAF's "Super Jollies" were useful helicopters, they were essentially daylight and VFR machines, but downed aircrew were often in trouble at night or in bad weather. A limited night and foul weather sensor system designated Pave Low I based on a Low-Light-Level TV (LLLTV) imager was deployed to Southeast Asia in 1969 and combat-evaluated on a Super Jolly, but reliability was not adequate. In 1975 an HH-53B was fitted with the much improved Pave Low II system and re-designated YHH-53H. This system proved much more satisfactory, and so eight HH-53Cs were given further improved systems fit and redesignated as the HH-53H Pave Low III. The improvements featured by the HH-53H included the AN/AAQ-10 forward-looking infrared (FLIR) imager, AN/APQ-158 terrain-following radar (TFR), Doppler-radar navigation system, Inertial Guidance System (INS), computerized moving-map display, and radar-warning receiver (RWR) and chaff-flare dispensers. The FLIR and TFR were mounted on a distinctive "chin" mount. The HH-53H could be fitted with 27 seats for troops or 14 litters. HH-53Hs were later given an upgrade under the Constant Green program, featuring incremental improvements such as a cockpit with blue-green lighting compatible with Night Vision Goggles (NVG's). They were then reclassified as "special operations" machines and accordingly given the new designation of MH-53H. The MH-53H proved itself in operations, and the Air Force decided to order more, producing the MH-53J Pave Low III Enhanced configuration.

The general configuration of the MH-53J is similar to that of the HH-53J, the major change being the fit of twin T64-GE-415 turbo shafts with greater power, as well as more armor. There were some avionics upgrades as well, including fit of a modern Global Positioning System (GPS) satellite navigation receiver. In turn The MH-53M Pave Low IV is a modified MH-53 J, which has been re-skinned, re-bladed, and thoroughly refurbished to have better night/adverse weather capability, integrated aircraft survivability equipment, and digital connectivity. The primary upgrade to these machines was the Interactive Defensive Avionics System/Multi-Mission Advanced Tactical Terminal or IDAS/MATT. The system enhances defensive capabilities of the Pave Low by providing instant access to the total battlefield situation, through near real-time Electronic Order of Battle updates. It also provides a new level of detection avoidance with near real-time threat broadcasts over-the-horizon from satellites, so crews can avoid and defeat threats, and replan their route in-flight if needed. Due to their high maintenance requirements and lack of IR exhaust suppressors, the MH-53 fleet is being replaced by the CV-22 which has twice the speed, range, and payload of the MH-53.

The MH-53M Pave Low IV helicopter which is the subject of this sheet carried the command element, using the call sign "Apple 1," during Operation Ivory Coast, the mission to rescue American prisoners of war from the Son Tay prison camp near Hanoi, North Vietnam in 1970. Following Vietnam, it flew in many more combat engagements including Operation Desert Storm and Operation Iraqi Freedom. After 38 years of service, its final flight was a combat mission in Iraq on March 28, 2008. It now resides at the National Museum of the U.S. Air Force at Wright Patterson AFB.

Notes for modelers: The available kits of the MH-53 lack the numerous RWR and SATCOM antennas associated with this aircraft, so they will have to be added. The same is true of the search and landing lights mounted on the nose.

Armament options: A combination of three 7.62 mini guns or three .50 caliber machine guns mounted on left and right sides (immediately behind flight deck) and on the aft ramp.

Color keys: The basic cockpit color is matte black for NVG purposes. This includes the seats, floor, overhead console and circuit breaker panels, door interiors, cyclic stick and collectives. Seat cushions and back pads are a matte black mesh material with black lap belts and shoulder harnesses. The aft cabin is Dark Gull Gray FS #36231 with a matte black floor. The left, forward section of the cabin contains black electronics racks, which carry various avionics boxes with black, gray, and aluminum colored casings. The cabin has "roll up" troop seats, which are Olive Drab material mounted over a matte aluminum frame with medium gray lap belts. It also had a large, orange duffel filled with survival gear mounted on the roof interior's aft, left hand side. The FLIR turret, main and tail rotors blades, hubs, and linkages are all matte black, as is the searchlight mounted underneath the nose. The main rotor blades have a NMF anti-erosion coating on the outer half of their leading edges; the tail rotors had this coating running their entire length. The main rotors also carry four thin white stripes running chord-wise on their tops and bottoms. RWR antennas are semi-gloss black, as are the main and nose wheels. The main gear struts are matte black, while the nose gear strut is semi-gloss white. The radome for the TFR varies in color, typically being slightly lighter or darker than the airframe color depending on weathering. In the case of "357" it is slightly lighter.

HH-60G Serial No: 87-26008 The Pave Hawk is a development of the U.S. Army's UH-60 Blackhawk family, and was first deployed in 1982. The HH-60G provides the capability of independent rescue operations in combat areas up to and including medium-threat environments. Recoveries are made by landing or by alternate means, such as rope ladder or hoist. Low-level tactical flight profiles are used to avoid threats, and Night Vision Goggle (NVG) and Forward Looking Infrared (FLIR) assisted low-level night operations, and night water operation missions are performed by specially trained crews. The basic crew normally consists of five: pilot, co-pilot, flight engineer, and two Pararescue Jumpers (PJ's). The aircraft can also carry eight to 10 troops. Because of its versatility, the HH-60G is also tasked to perform military operations other than war. These tasks include civil search and rescue, emergency aeromedical evacuation, disaster relief, international aid, counterdrug activities, and NASA space shuttle support.

HH-60Gs have an automatic flight control system, NVG compatible lighting, and an AN/AAQ-16 Forward Looking InfraRed (FLIR) system that greatly enhances night low-level operations. Some Pave Hawks also carry the AN/APN-239 color weather radar, increasing their adverse weather capability. To improve air transportability and shipboard operations, all HH-60Gs have folding rotor blades. Pave Hawk mission equipment includes a retractable in-flight refueling probe, optional internal auxiliary fuel tanks, and two crew-served 7.62mm or .50 caliber machineguns. Rescue equipment includes an 8,000-pound (3,600 kilograms) capacity cargo hook, and a personnel locating system that is compatible with the PRC-112 survival radio and provides range and bearing information to a survivor's location.

Pave Hawk combat enhancements include the AN/APR-39A(V)1 radar warning receiver, AN/ALQ-144A infrared jammer, Hover Infrared Suppression System (HIRSS), M-130 chaff dispensers, and precision navigation equipment (GPS, Inertial Navigation System (INS), Doppler) which are fitted to afford additional threat avoidance and protection. A limited number of Pave Hawks are equipped with an over-the-horizon tactical data receiver that is capable of receiving near real-time mission update information.

HH-60G Contn'd

HH-60G's have a long history of use in contingencies, starting in Operation Just Cause. During Operation Desert Storm they provided combat search and rescue coverage for coalition forces in western Iraq, coastal Kuwait, the Persian Gulf and Saudi Arabia. They also provided emergency evacuation coverage for U.S. Navy SEAL teams penetrating the Kuwaiti coast before the invasion. During Operation Allied Force, Pave Hawks provided continuous combat search and rescue coverage for NATO air forces, and successfully recovered two Air Force pilots who were downed behind enemy lines. Today the HH-60G continues to deploy in support of operations Enduring Freedom and Iraqi Freedom in Afghanistan and Iraq. In the aircraft's humanitarian relief role, three Pave Hawks deployed in March 2000 to Mozambique, Africa, to support international flood relief operations. After Hurricane Katrina in September 2005, more than 20 active-duty, Reserve, and National Guard Pave Hawks were deployed to Jackson, Miss., in support of recovery operations in New Orleans and surrounding areas.

The subject of our sheet is from the 41 Rescue Squadron which is part of the 347 Rescue Group at Moody AFB. The 41 RQS has flown search and rescue missions from, 1952-1960, 1962-1987, and since 1989. It also recovered high-altitude atmospheric-sampling devices from, 1962-1987. Beginning in Mar 1989, the squadron has provided prelaunch security and safety surveillance of NASA launches and recovery or medical evacuation for Space Shuttle crewmembers in addition to its normal military duties.

Notes for modelers: Depending on which HH-60 kit the modeler starts with various modifications will be required. This particular aircraft was an upgraded version of the HH-60G, known as Block 152 which carried the repositioned radar mounted centrally on the upper nose and used the external weapons mount. A FLIR turret and the HIRSS will probably also be required additions, again depending on the kit. This airframe was also one of those that repositioned the missile plume detectors from the main gear sponsons to large fairings on the nose and consequently moved the position lights from the main gear sponsons to the ESSS fairings. In addition, GPS and SATCOM antennas will need to be added on the cabin roof and plume detector and RWR antennas on the tail of most kits. Finally, besides the four chaff/flare dispensers carried on the aft fuselage (two on each side) an additional dispenser was also mounted on each main landing gear. Several excellent HH-60G walkarounds are available at http://www.aircraftresourcecenter.com

Armament options: Two externally mounted 7.62mm or .50 caliber machineguns can be carried, one outside each side window. When carried, they typically use dark tan colored ejector chutes to keep spent shell casings away from the airframe, and their ammunition supply was mounted externally also, forward of the gun mount, resting on the main gear sponsons. An excellent walkaround of the gun mount is available online at http://www.primeportal.net/hangar/sal_provenzano/hh-60g_ext_gun_mount/

Color Keys: The basic cockpit color is matte black for NVG purposes. This includes the seats, floor, overhead console and circuit breaker panels, door interiors, cyclic stick and even the canvas boot for the cyclic. The pilot and copilot seats have matte black mesh covers on the seat cushion and back pad with sage green headrests. The lap belts and shoulder harnesses are also black. Just aft of the pilot and copilot seats, the Flight Engineer and gunner's positions are covered in Olive Drab FS #34087 padding on the walls and roof. The wall padding stops at the first window, but the roof padding runs aft till even with the opening for the cabin doors. From that point, the roof in the troop compartment is exposed to allow access to the "H-bar," rappel rings, and static line cables mounted there. Fire extinguishers at the FE's position are yellow rather than the typical red, and the FE has a black avionics console on the aircraft's right side, just aft of the pilot's seat. The FE's seat is Dark Gull Gray fabric stretched over a Dark Gull Gray frame with a medium tan headrest (roughly FS #30252) and black lap belts and shoulder harnesses, as is the gunner's removable seat. Aft of these positions the cargo compartment is Dark Gull Gray FS #36231, including the floor, walls, and roof. At the rear of the cabin one or two 185 gallon auxiliary fuel tanks can be mounted. When carried these are rectangular, semi-gloss black containers with Olive Drab harnesses. Frequently rescue gear contained in International Orange (FS #33538) bags is carried at the cabin's rear also. The main and tail rotor hubs are matte black, while the main rotor shaft is aluminum. The main rotor blades are matte black with two narrow, yellowish-white bands on the top and bottom of each blade at midspan to aid in balancing. The tail rotors are also black with a semi-gloss black and aluminum anti-corrosion strip on the leading edge of each rotor. The radar's radome is semi-gloss black, while the FLIR turret, leading edge of the engine intakes and vertical fin, and most of the external gun mounts are matte black. The M130 chaff/flare dispensers are gray to match the aircraft exterior.

OH-58D Serial No Unknown The OH-58D was the result of the Army Helicopter Improvement Program (AHIP), which addressed the limitations of earlier versions of the Kiowa, primarily in the power train, and was intended to provide a digital platform to aid the U.S. Army's then new artillery systems. An upgraded transmission and engine gave it the increased power it needed in hot and high altitude climates, and a four-bladed main rotor made it much quieter than the two-bladed OH-58C. In addition, the OH-58D included the most distinctive feature of the family – a Mast-Mounted Sight (MMS) above the rotor system with a gyro-stabilized platform containing a TeleVision System (TVS), a Thermal Imaging System (TIS), and a Laser Range Finder/Designator (LRF/D). These new features gave the aircraft the additional mission capability of target acquisition and laser designation in both day and night, and in limited-visibility and adverse weather conditions. During Desert Storm, the 115 OH-58D helicopters in-

OH-58D Contn'd

country participated in a wide variety of critical combat missions primarily as scouts and artillery observers. During Desert Shield/Desert Storm the OH-58D flew nearly 9,000 hours with a 92 percent full mission capability. . Originally looked upon as an "interim" solution till the RAH-66 Comanche entered service, the OH-58D is still in service twenty five years after its first flight. This particular aircraft was part of the European based 3rd Infantry Division, and was assigned to H Company, 4th Brigade, 3rd Aviation Regiment.

Notes for modelers: The OH-58D's in Desert Storm did not carry the AN/ALQ-144 IR jammer. This particular aircraft had most of the rear cabin door windows on both sides painted over, since the rear compartment was filled with electronics for the MMS, and included a pair of round cooling vents in each of the cabin and cockpit door windows. With the aircraft shut down the MMS is most commonly seen pointed aft towards the 6 o'clock position; however, pictures show that it can also frequently be seen pointed towards the 12 and 3 o'clock positions too. This airframe had the rounded nose, rather than the more pointed LO forward fuselage some Kiowas were fitted with, and still used the full size cabin doors. It was not yet fitted with the Cockpit Air Bag System (CABS), which modified the instrument panel coaming; it also still retained the old style landing skids rather than the "squatting" Multipurpose Light Helicopter (MPLH) type later fitted to ease transportation in cargo aircraft. Modelers will also want to fit the blade style AN/APR-39 blade antennas on the aircraft roof and belly. A final note is that the wire trailing from the large FM antennas mounted on the cockpit roof was bent upwards to allow easier removal of the engine cowling.

Armament options: The OH-58D's in Desert Storm were not yet carrying armament, that came later in the Kiowa Warrior program, which saw its first delivery to the U.S. Army in May 1991.

Color Keys: This aircraft (including the mast mounted sight) was painted in theatre by using a mix of commercially available brown and white latex house paints, so it did not conform to a particular FS color. The closest match to the final mix used was tan FS #33711. The helicopter's overall finish was heavily weathered and stained; although the cockpit doors were rather clean. The basic cockpit color is matte black for NVG purposes. This includes the seat framing, Kevlar seat armor panels, floor, overhead console, circuit breaker panels, door interiors, cyclic and collective sticks and even the canvas boot for the cyclics and collectives. The collective head was made of cork, and started out light tan but darkened as it got dirty with use. The pilot and copilot seats cushions were frame structures with olive drab material stretched over them, while the back pad was an olive drab cushion mounted on the bulkhead. The lap belts were a dirty white and shoulder harnesses were green-gray. The cargo compartment was filled with racks and electronics, and its basic color was black. The main and tail rotor hubs and shafts are matte black along with the main and tail rotor blades themselves; the outer third of the main rotor blades had their leading edge covered with a nickel anti-erosion coating. Also remaining black, despite the repaint, were the AN/APR-39 antennas and the FM radio antennas on the roof. The engine compartment interior and the "well" for the main rotor hub were untinted (yellow) zinc chromate. It is assumed that the engine exhaust area remained unpainted, and was burnt metal. The fuel filler cap on the right side fuselage was painted Insignia Red FS #31136.

MC-130P Serial No: 69-5826 The Combat Shadow flies clandestine, or low visibility, single or multi-ship low-level air refueling missions for special operations helicopters, and infiltration, exfiltration, and resupply of special operations forces by low and high altitude airdrops or airland operations. The MC-130P primarily flies missions at night to reduce probability of visual acquisition and intercept by airborne threats. Its secondary mission includes the airdrop of leaflets. MC-130Ps were previously designated HC-130N/P and trace their roots back the HC-130 version originally ordered in 1963 and first flown in 1964. The aircraft was initially modified to conduct search and rescue missions, provide a command and control platform, refuel helicopters and carry supplemental fuel for extending range or air refueling. In the Vietnam War they were used to refuel Jolly and Super Jolly Green Giant helicopters and, as an airborne command post, to direct rescue efforts. Four aircraft were also modified to deploy and control 10,000-pound remotely piloted vehicles. However, the "H" designation is a rescue and recovery mission code and not representative of the aircraft's special operations role. In February 1996, Air Force Special Operations Command's tanker fleet was redesignated as MC-130P aircraft, aligning the Combat Shadow with other M-series special operations mission aircraft. Combat Shadows have been part of the special operations mission since the mid-1980's.

Modifications completed in FY2000 under the acronym "SOFI" which stood for Special Operations Forces Improvement, greatly increased the capability of the HC-130P. This program featured improved navigation, communications, threat detection and countermeasures systems. A SOFI modified Combat Shadow has a Self Contained Navigation System (SCNS), improved radar (AN/APN-59E), a night-vision goggle-compatible interior and exterior lighting. It also has a forward-looking infrared system, AN/ALR-69(V) missile and radar warning receivers, AN/ALE-40 chaff and flare dispensers and Night Vision Goggle compatible heads-up display. In addition, it has satellite and data burst communications, as well as in-flight refueling capability as a receiver.

The Combat Shadow can fly in the day against a reduced threat; however, crews normally fly night, low-level

MC-130P Contn'd

air refueling and formation operations using night-vision goggles. To enhance the probability of mission success and survivability near populated areas, crews employ tactics that include incorporating no external lighting or communications, and avoiding radar and weapons detection. A typical crew complement comprises eight members of four officers: the pilot, co-pilot, primary navigator, secondary navigator, and four enlisted troops: a flight engineer, communications systems operator and two loadmasters. During Operation Allied Force, an MC-130P Combat Shadow participated in a combat search and rescue mission for the pilot of a downed F-117A stealth fighter. For their efforts, the 67 Special Operations Squadron crew was named winner of the 1999 Brig. Gen. Ross G. Hoyt Award. This award is presented annually by Air Mobility Command to the most outstanding air refueling aircrew. The Combat Shadow crew took off enroute to Bosnia-Herzegovina for a rendezvous with three rescue helicopters. Two were MH-53 Pave Lows, the third helicopter was an MH-60 Pave Hawk. The plan called for the rescue helicopters to refuel immediately before crossing the Serbian border to allow them to operate with full fuel tanks. Until needed, the MC-130P remained out of sight. After more than 90 minutes of orbiting close to the border, the call came from the helicopter crews for the desperately needed fuel that would enable them to continue the rescue mission. The refueling took place at the unusually low altitude of 700 feet within three miles of the Serbian border. Afterward, they waited for the second MC-130P to replace them before departing for their own badly needed fuel.

The secondary mission of the HC-130P is peacetime search and rescue. HC-130P aircraft and crews are uniquely trained and equipped for search and rescue in all types of terrain including artic, mountain, and maritime. Peacetime search and rescue missions may include searching for downed or missing aircraft, sinking or missing water vessels, or missing persons. The HC-130P can deploy pararescuemen to a survivor, escort a helicopter to a survivor, or airdrop survival equipment to a survivor. The subject aircraft is based at Hurlburt Field in Florida, which is part of Eglin AFB as part of the 9 Special Operations Squadron, under the 1 Special Operations Wing. They have flown the C-130 since 1988, and have seen combat in Panama, the Balkans, Kuwait, Iraq, and Afghanistan.

Notes for modelers: Since this aircraft had undergone the SOFI mod, it carried the under nose InfraRed Detection System turret and a HUD for the pilot. As a refueling aircraft, available kits will have to be modified with underwing refueling pods. In addition the MC-130P carries a pair of removable 1800 gallon fuel tanks (known as Benson Tanks) in the cargo compartment. Since it is a special mission aircraft, the antenna fit on this MC-130 was different from conventional mission C-130's, and the chaff/flare dispensers will need to be added.

Notes for modelers: Since this aircraft had undergone the SOFI mod, it carried the under nose InfraRed Detection System turret and a HUD for the pilot. As a refueling aircraft, available kits will have to be modified with underwing refueling pods. In addition the MC-130P carries a pair of removable 1800 gallon fuel tanks (known as Benson Tanks) in the cargo compartment. Since it is a special mission aircraft, the antenna fit on this MC-130 was different from conventional mission C-130's, and the chaff/flare dispensers will need to be added.

Color keys: Paint Keys: Basic flight deck color is matte black for NVG purposes to include the instrument panel, coaming, floor, walls, roof, overhead consoles, and the crew seats. The seat have "wool" black seat cushions and back pads, with black leather head and arm rests for the pilot and copilot, but medium a gray leather headrest (Close to FS #36231) for the Flight Engineer. Lap belts and shoulder harnesses are green-gray. Control yokes are matte black with semi-gloss black control wheels. The basic color of the cargo compartment is Dark Gull Gray, but much of it is covered with Seafoam Green (FS#34440) padding with equipment in Dark Gull Gray and matte black. The rear of the aircraft, visible, when the ramp is lowered is matte black. The wheel wells, gear door interiors, and landing gear are painted semi-gloss white and the wheels semi-gloss black. Prop hubs and cuffs are matte black, with the rest of the propeller in dull natural metal; the prop tip stripes are matte black as is the IRDS under nose turret.

KITS & BITS

MC-130E, H, & P AMT, Esci, Italeri, Airfix

Fightpath makes the following conversion kits:

T56-15 Engines
Refueling Pods
MC-130E
MC-130H

MH-53M Italeri

OH-58D – Italeri, Airfix

HH-60G – Italeri MH-60K kit