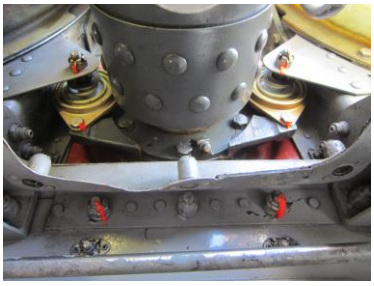
Hangar Happenings for November and December 20720

Replacing the H-46 rotor head

Removing the old lord mounts



New synchshaft lord mounts

Tracing H-46 wiring diagrams

DL-125 cockpit

DL-125 forward landing gear

Rotorheads,

The end of 2020 was relatively quiet and slow especially in company with the holiday season. In spite of the slow pace, work was accomplished on some of our key aircraft including the HH-46E, the HH-1N and the DL-125.

The largest project during this period was accomplished on the Boeing Vertol **HH-46E Sea Knight**. The aft rotor head was replaced with a new one. Cracked synchronizing shaft (synchshaft) lord mounts were replaced as well as the synchshaft bearing cover. All of the H-46 labor culminated with a one hour ground turn to ensure all of the work and parts were secure. The head change and ground turn also gave opportunity to check the automatic blade and unfold system and to do a detailed AIMS analysis. AIMS is the Aircraft Integrated Maintenance System, a built-in computer and sensor system monitoring engine and transmission driveshaft and gearbox vibrations, temperatures and torque as well as rotor system track and balance. Work was also done to fix one of the engine condition actuators (ECA's) that wasn't working properly. The ECA allows the pilot to control the engine fuel control from the cockpit. We are also working on

Synchshaft cover

Ramp actuator

HH-46E ground turn

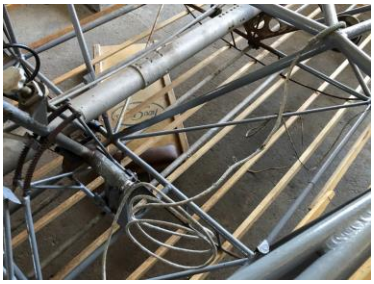
HH-46E with blades folded

Checking H-46 AIMS data

HH-46E malfunctioning ECA

New DL-125 side window

the ramp actuators and the radio wiring to install new radios as well as many more parts to inventory.



DL-125 bottom stringers

The second airframe that received the most work this period was the De Lackner **DL-125 Cloud Buster**. The cockpit metal work was cleaned and repainted and work continued on replacing the cockpit windows. The landing gear struts were cleaned and painted and look really good. More wood stringers were added to the belly of the fuselage. The wood stringers will eventually be covered with doped fabric.

DL-125 rear windows in place

Huey searchlight

The last aircraft project worked on during this period was the Bell **HH-1N Huey**. A searchlight was mounted on the Huey. It is mounted just below and a little behind the left cockpit door and in front of the skid cross tube.

New Model Room models

Other projects included the Model Room, a stained glass window and new engine display. The **Model Room** saw four new 1/72 scale models for display. The new models are the Hiller YH-32 Hornet, the Sikorsky S-61N civil version of the H-3 Sea King, the Fairey Rotodyne compound helicopter/autogyro airliner from the 1950's, and the McDonnell XHJH Whirlaway helicopter from the 1940's. A **Stained Glass Window** of a Bell 214 was donated to the museum. It was donated by a man whose father was one of the engineers for the helicopter and had it made. It is a beautiful work which we have yet to display. A cut-away **Pratt & Whitney T-400** gas turbine engine was acquired. The 900 SHP engine was combined with another one in a twin-pac configuration to power the HH-1N so it is displayed along with that helicopter in the museum.

P&W T-400 arriving

Bell 214 stained glass

P&W T-400 twin-pac engine

Potted palm

Leatherneck museum H-34

Tour at the Kamov Ka-26

On the outside of the museum we worked on our potted palm trees. They require weekly watering and work to keep them looking good. We also visited the Flying

Leatherneck AH-1 Cobra

Leatherneck Museum at Marine Corps Air Station Miramar in San Diego to coordinate mutual project support. They have many historic aircraft on display. Although most of their aircraft are fixed-wing, they do have some helicopters and are a wonderful source for restoration information. Along with all of the work on aircraft, displays and infrastructure and despite the virus, the occasional tour still occurs. We are always pleased when people show up and don't hesitate to accommodate them.

Sikorsky H-37 Mojave


Vertol Model 105

Kaman HH-43B Huskie

The months of November and December have so many vintage helicopter events. It's probably because so many projects have to happen by the end of the year. I picked a few here chronologically. On November 9, 1956 a USMC Sikorsky HR2S (later known as the H-37 Mojave) set a record by carrying an 11,050 pound load to an altitude of 12,000 feet. On November 20, 1957 a modified Army H-21 Shawnee was redesignated as the Model 105 after it was modified with two Lycoming T-53 turbine engines. This was the design prototype test aircraft for a large tandem rotor turbine powered helicopter that would become the Vertol Model 105/H-46 Sea Knight. December 13, 1958 saw the first flight of the Kaman HH-43B Huskie synchropter. The Huskie was known by the nickname Pedro and was credited with more combat saves than any other helicopter in Vietnam. There is also a special treat with links to vintage videos of Westland Helicopters and the Fairey Rotodyne from the 40's, 50's and 60's at the bottom.

You should look forward to an exciting new website and other innovations that will happen soon. Rotors.org will have a new look which we have been working on since October. The new website will be launched in the next few weeks and we will make a separate announcement to everyone when that happens. So hop on into your contemporary or vintage vehicle of choice and motor on up when things get better to check out our H-37 Mojave, H-21 Shawnee, H-46 Sea Knight and H-43 synchropter. Stay safe Rotorheads, see you soon.

Chip out

https://www.youtube.com/watch?v=DliK9Khdh0I

https://www.bing.com/videos/search?q=Fairey+Rotodyne&&view=detail&mid=934260226392B58BF8C2934260226392B58BF8C2&&FORM=VRDGAR&ru=%2Fvideos%2Fsearch%3Fq%3DFairey%2BRotodyne%26%26FORM%3DVDVVXX