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R44, R66 Rank Number 1 in 2015

Robinson Helicopter president Kurt Robinson held his annual press conference at Heli-Expo (Louisville, KY) in March. Kurt reported the company produced a total of 347 helicopters in 2015 an increase over the 329 produced in 2014. Production included 196 R44s, 117 R66s and 34 R22s.

According to GAMA's (General Aviation Manufacturing Association) 2015 year-end report the R44 was the number one selling helicopter in the world while the R66 ranked as the number one selling civil turbine helicopter in the world. Kurt stated roughly 60-65 percent of sales went to overseas customers, primarily Australia, China, South Africa and Europe.

Usage of the R66 continues to pick up momentum. Data from Rolls-Royce shows the R66 logged a total of 150,000 hours in 2015, bringing the total to 450,000 since it was certified in 2010. To further enhance the R66's utility, Robinson recently intro*continued on page 3*

FAA Approves R66 Aux Fuel Tank

An optional 43-gallon auxiliary fuel tank for the R66 Turbine helicopter was recently approved by the FAA, extending the helicopter's range by as much as 200 nautical miles (230 statute miles). The fuel tank mounts on a fiberglass tray that installs in the forward section of the bag-

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FAA Certifies R44 Cadet



R44 Cadet

Robinson's R44 Cadet was FAA certified on May 6th and the company has been accepting orders since February. The introductory price with standard equipment is US\$339,000, the float equipped version is US\$367,000, and the required deposit is US\$40,000.

Designed with the training market in mind, the R44 Cadet's airframe, rotor system, and powerplant (Lycoming O-540-F1B5) are the same as the proven R44 Raven I. Where the Cadet differs is the rear seats have been removed providing ample cargo space, the maximum gross weight has been reduced to 2200 lb and the engine power has been derated to 210 hp takeoff and 185 hp continuous. The lower weight and derated power provide increased performance margins at high altitudes and extend the time between overhaul (TBO) from 2200 hours to 2400 hours.

A variety of optional equipment including air conditioning, stability augmentation system/autopilot, and avionic packages for VFR or IFR training are available.

Robinson Helicopters Used for Uber Chopper Services

Epic Helicopters (Fort Worth, TX) teamed up with Uber, a smartphone app that pairs transportation providers with customers, to provide helicopter transportation for people attending big ticket events. Venues include the Texas Motor Speedway, Circuit of the Americas (home to Formula One) and the AT&T Stadium (home to the Dallas Cowboys) for events such as the F1 Grand Prix, NCAA College Football Championships and Academy of Country Music Awards.

Most recently, on April 3rd, fans attending the ever popular Wrestlemania were picked up at their location by an Uber driver then driven to Love Field where an R44 awaited. The 15 minute one-way flight to the Arlington AT&T Stadium included a bird's-eye view of the Texas Rangers ballpark and the Six Flags Over Texas theme park. Passengers were dropped off a couple of blocks from the stadium and after the event were Ubered home.



A bird's-eye view of the Texas Ranger's ballpark and AT&T Stadium.

R22 Gets a Collective-Activated Hour Meter

A collective-activated hour meter along with an updated hub and redesigned main rotor spindles are standard on all new R22 Beta II helicopters. Previously, the R22 used an oil-pressure-activated meter which records all engine run time. The new collective activated meter records collective-up (flight) time and does not include engine warm up and cool down time.

The new meter and redesigned spindles benefit R22 buyers because the collective-activated meter can extend component lives by up to 12 percent and the redesigned spindles are not subject to repetitive dyepenetrant inspections.



Robinson Helicopters Save Fruit Crops



Platinum's R66 helicopter over peach orchard.

Evan Van Gilson, Chief Pilot and co-owner of Platinum Helicopters in Princeton, New Jersey uses Robinson helicopters to protect fruit trees from frost. Cold air is very damaging to plants often destroying entire crops overnight. Circulating the air helps to raise temperatures by pushing warmer air to the ground's surface. Fans are one method to help circulate air but can only cover 8-10 acres of crops and their effect can be negated under windy conditions. A more effective method uses helicopters flying very low, between 65 to 100 feet off the ground, during early morning hours. Shifts sometimes start as early as midnight. Depending on the size of the orchard, Van Gilson uses one or more Robinson helicopters and always sends two pilots per helicopter. The helicopters fly slowly covering up to 40 acres of crops with passes repeating every 30 to 60 minutes.

Platinum has provided this service for eight years mostly in New York state and more recently in New Jersey due to unusually warm winters that caused the trees to blossom early. The FAA approves the use of helicopters for frost prevention, the only limitation is that they cannot fly over densely populated areas. Van Gilson considers helicopters to be the best method of frost prevention, having helped four farms in New Jersey already this year.

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FAA Approves R66 Aux Fuel Tank



Auxiliary fuel tank installed in R66 baggage compartment.

gage compartment. The tank occupies two-thirds of the compartment, leaving space for up to 100 lb of cargo. Both the tray and tank can be removed when not needed.

The system weighs approximately 37 lb without fuel. A crash-resistant fuel bladder fits into an aluminum and fiberglass enclosure with an internal fuel pump that pumps fuel to the helicopter's main tank at approximately 40 gallons per hour. The controls are located in the upper avionics console and feature an ON/OFF switch, a NO FLOW annunciator light, and a fuel QUANTITY button.

The system costs US\$32,000 and is available on R66s ordered after January 15, 2016.



Controls are located on the R66 instrument panel



List of Countries Approving G500H and HeliSAS/Autopilot on R66 Grows



Russia, Canada, Europe, and Brazil approved the G500H and HeliSAS/Autopilot for the R66 Turbine. The G500H is a combination primary flight display and multifunction display that provides flight instruments, moving map navigation and situational awareness on dual screens. The Genesys Aerosystems HeliSAS autopilot was designed specifically for light helicopters and works as a stability augmentation system by applying corrective inputs to the cyclic in order to maintain fixed pitch and roll attitude.

Only light force on the cyclic is required to override or fly through the system allowing the pilot to maneuver comfortably. Additional autopilot modes include heading hold, altitude hold, navigation signal tracking (VOR or GPS) and approach navigation (including vertical guidance). The autopilot does not provide any collective or pedal inputs.

R44, R66 Rank Number 1 in 2015



Heli-Expo attendees check out the new R44 Cadet

duced an optional 43-gallon auxiliary fuel tank which increases the aircraft's range from three hours to five hours. Robinson noted the increased range will open doors for commercial operators particularly those in remote areas. Other projects in the works include an ENG (Electric News Gathering) R66 targeted for release in 2017 and an R66 cargo hook, previously set aside because of more pressing projects, but now a top priority.

Moving on to the R44, the big news was the 2-place R44 Cadet which the company introduced in November. The modestly priced Cadet is a cross between the R22 and the R44 and was designed for the training market (see FAA Certifies Robinson R44 Cadet, p 1).

In other R44 news, Robinson is working with Garmin on certification of the G500H for the R44, which should make the Cadet even more appealing to flight schools. Also, a new muffler which reduces fly-over noise by 3 decibels is being installed in all model R44s (including factory overhauled R44s) which, according to Robinson, will greatly improve noise abatement.

Wrapping up, Kurt said all the recent advancements and technology have created new interest, and the company is excited about 2016.

1 in Customer Service for 13 Years



Robinson Customer Service and Technical Support Staff.

In *Professional Pilot Magazine's* 2016 Helicopter Product Support Survey, Robinson dominated the piston-powered helicopter sector for the 13th year in a row. With a solid 8.06 rating, Robinson had the highest overall score of any piston or turbine manufacturer. Seven categories are rated: company response time, spares availability, costs of parts, speed in AOG service, tech manuals, tech reps, and service satisfaction. Robinson showed the greatest improvement in the tech reps category moving from a rating of 7.45 in 2015 to 8.19 in 2016.

This is the 22nd year *Professional Pilot* asked helicopter operators to rate the quality of after sale product support by helicopter manufactures. The survey is divided into two sections, piston and turbine. The rules require a minimum of 35 evaluations to be considered for inclusion. Because Robinson's R66 Turbine is still relatively new in the industry only nine evaluations were submitted, which did not meet the requirements.

Tim Tucker Honored by Swiss Office of Aviation



Tim Tucker, RHC's Chief Safety Instructor, received a letter of recognition from the Board of Directors of the Swiss Federal Office of Civil Aviation (FOCA) for his efforts in promoting the "Vuichard Recovery" to the U.S. Helicopter Safety Team (USHST).

The "Vuichard Recovery" was implemented in the Robinson Maneuver Guide for R22 and R44 helicopters and became a part of each Robinson safety training course. As a result the USHST voted positively to endorse the "Vuichard Recovery."

FOCA truly believes Tucker's support and effort helped the recovery technique to achieve international distribution and contributes significantly to improving aviation safety.

For more on the Vuichard Recovery, see Flying Through the Vortex, Rotor & Wing Magazine September 2015.

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