



## Smithsonian Institution

*Smithsonian National Air and Space Museum Archives*

### **New York Airways Collection - Trans World Airlines (TWA), "Flite Facts", 1965**

Extracted on Oct-22-2021 02:43:30

**The Smithsonian Institution thanks all digital volunteers that transcribed and reviewed this material. Your work enriches Smithsonian collections, making them available to anyone with an interest in using them.**

The Smithsonian Institution (the "Smithsonian") provides the content on this website ([transcription.si.edu](https://transcription.si.edu)), other Smithsonian websites, and third-party sites on which it maintains a presence ("SI Websites") in support of its mission for the "increase and diffusion of knowledge." The Smithsonian invites visitors to use its online content for personal, educational and other non-commercial purposes. By using this website, you accept and agree to abide by the [following terms](#).

- If sharing the material in personal and educational contexts, please cite the Smithsonian National Air and Space Museum Archives as source of the content and the project title as provided at the top of the document. Include the accession number or collection name; when possible, link to the Smithsonian National Air and Space Museum Archives website.
- If you wish to use this material in a for-profit publication, exhibition, or online project, please contact Smithsonian National Air and Space Museum Archives or [transcribe@si.edu](mailto:transcribe@si.edu)

For more information on this project and related material, contact the Smithsonian National Air and Space Museum Archives. [See this project](#) and other collections in the Smithsonian Transcription Center.

### METROPOLITAN AIR SERVICES (Cont'd)

needed for an IFR certificate. NYA has been using dispatchers for some time.

The NYA pilots are members of the ALPA and fly credited 80 hours per month. They have a maximum ten hour duty time and keep quite busy. Observation of them at work seems to indicate there are not enough hands to go around, "as the human body is presently constructed" so functions of collective rotor pitch are combined with beep control in one lever which the pilot operated with his left hand, leaving the right hand free or the cyclic control which performs the same maneuvering functions as the control wheel. The microphone switch on the yolk now takes on special value because the third hand for a microphone is no longer available and a boom mike is necessary. The console has an engine position actuator with four positions of stop, crank, start, and fly. The two beep trim switches on the collective lever are used to modify the engine conditions of take-off, crushing, and descent. The dual rotors are linked by common drives and beep control of engine r.p.m. provides engine synchronization and equal power loading.

NYA has the Boeing Vertol 107 turbo opted. It has 25 comfortable seats, relatively spacious seating considering the trip lengths. The scheduled block time, for example, from JFK to Wall Street- Manhattan, is 16 minutes; EWR-JFK nonstop is 12 minutes, and with two stops 25 minutes.

The Vertol 107 is jet powered by two GE T-58 turbine engines having 1250 shaft h.p. each with growth potential to 1500 h.p. IT has a 300 mile radius of operation at sea level on a standard day. Its stub wing tanks hold 1000 gallon of fuel and provide lateral stability if landed on water.

The fuselage is factory sealed permitting a float capability from water landing and taxi for over 24 hours. They are manufacture in Morton, Pennsylvania by Vertol Division of the Boeing Co.

SFO Helicopter Airlines operates Sikorsky S-61N twin jet, 26-passenger, amphibious turbocopters with GE T-58 turbine engines. S-62A, 10-passenger copters are also used in addition to the hovercraft. The Sikorsky plant is at Stratford, Connecticut.

The maximum speed of Vertol 107 is approximately 145 KIAS. They cruise close to maximum. Helicopter speed is limited by the relation of rotor blade speed on the rearward portion of its rotation, to the craft's forward speed. High blade r.p.m. old counteract this, but immediately limitations in rotor efficiency result.

In the course of training and on the usual proficiency checks, pilot demonstration of the auto rotation technique is required. This is the safety feature for complete power failure. The departure and arrivals are made on an angular path with constantly changing speed, permitting auto rotation at any time. This flight path is designed to provide maximum safety at all times.

### METROPOLITAN AIR SERVICES (Cont'd)

needed for an IFR certificate. NYA has been using dispatchers for some time.

The NYA pilots are members of ALPA and fly a credited 80 hours per month. They have a maximum ten hour duty time and keep quite busy. Observation of them at work seems to indicate there are not enough hands to go around, "as the human body is presently constructed", so functions of collective rotor pitch are combined with beep control in one lever which the pilot operates with his left hand, leaving the right hand free for the cyclic control which performs the same maneuvering functions as the control wheel. The microphone switch on the yolk now takes on special value because the third hand for a microphone is no longer available and a boom mike is necessary. The console has an engine position actuator with four positions of stop, crank, start, and fly. The two beep trim switches on the collective lever are used to modify the engine condition actuator for conditions of take-off, cruising, and descent. The dual rotors are linked by common drives and beep control of engine r.p.m. provides engine synchronization and equal power loading.

NYA has the Boeing Vertol 107 turbocopter. It has 25 comfortable seats, relatively spacious seating considering the trip lengths. The scheduled block time, for example, from JFK to Wall Street - Manhattan, is 16 minutes; EWR-JFK nonstop is 12 minutes, and with two stops 25 minutes.

The Vertol 107 is jet powered by two GE T-58 turbine engines having 1250 shaft h.p. each with growth potential to 1500 h.p. It has a 300 mile radius of operation at sea level on a standard day. Its stub wing tanks hold 1000 gallons of fuel and provide lateral stability if landed on water.

The fuselage is factory sealed permitting a float capability from water landing and taxi of over 24 hours. They are manufactured in Morton, Pennsylvania by the Vertol Division of the Boeing Co.

SFO Helicopter Airlines operates Sikorsky S-61N twin jet, 26-passenger, amphibious turbocopters with GE T-58 turbine engines. S-62A, 10-passenger copters are also used in addition to the hovercraft. The Sikorsky plant is at Stratford, Connecticut.

The maximum speed of the Vertol 107 is approximately 145 KIAS. They cruise close to maximum. Helicopter speed is limited by the relation of rotor blade speed on the rearward portion of its rotation, to the craft's forward speed. High blade r.p.m. could counteract this, but immediately limitations in rotor efficiency result.

In the course of training and on the usual proficiency checks, a pilot demonstration of auto rotation technique is required. This is the safety feature for complete power failure. The departures and arrivals are made on an angular path with constantly changing speed, permitting auto rotation at any time. This flight path is designed to provide maximum safety at all times.

Should one engine fail, engine r.p.m.'s will drop in a normal manner on the affected engine, as a result of a fluid coupling and a clutch system. Unlike the Sikorsky S-61, the Vertol 107, because of its twin rotor system, need have two transmissions and interconnecting drives. Both rotors operate at 19,000 pounds maximum gross weight.

The helicopter meets all aeronautical engineers definitions for being inherently unstable. System hydraulic aids have been added for the busy helicopter pilot.

Should one engine fail, engine r.p.m.'s will drop in a normal manner on the affected engine, as a result of a fluid coupling and a clutch system. Unlike the Sikorsky S-61, the Vertol 107, because of its twin rotor system, must have two transmissions and interconnecting drives. Both aircraft operate at 19,000 pounds maximum gross weight.

The helicopter meets all aeronautical engineers definitions for being inherently unstable. System hydraulic aids have been added for the busy helicopter pilot

New York Airways Collection - Trans World Airlines (TWA), "Flite Facts",  
1965  
Transcribed and Reviewed by Digital Volunteers  
Extracted Oct-22-2021 02:43:30



## Smithsonian Institution

*Smithsonian National Air and Space Museum Archives*

The mission of the Smithsonian is the increase and diffusion of knowledge - shaping the future by preserving our heritage, discovering new knowledge, and sharing our resources with the world. Founded in 1846, the Smithsonian is the world's largest museum and research complex, consisting of 19 museums and galleries, the National Zoological Park, and nine research facilities. Become an active part of our mission through the Transcription Center. Together, we are discovering secrets hidden deep inside our collections that illuminate our history and our world.

Join us!

The Transcription Center: <https://transcription.si.edu>

On Facebook: <https://www.facebook.com/SmithsonianTranscriptionCenter>

On Twitter: [@TranscribeSI](https://twitter.com/TranscribeSI)

Connect with the Smithsonian

Smithsonian Institution: [www.si.edu](http://www.si.edu)

On Facebook: <https://www.facebook.com/Smithsonian>

On Twitter: [@smithsonian](https://twitter.com/smithsonian)