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Breaking News

- Find the Air Speed Indicator (ASI) and WIN Big. See Story at Right. Virtual Drawing in event of multiple entries.
- Be sure to send in photos, stories and other news that may be of interest to the membership.
- New Website. Go to <https://chapters.eaa.org/eaa203> to see the new look!

Can You Identify This Aircraft?



Send your Answer to scott@placestofly.com
The answer will be in Next Months Hangar Talk

Find the Air Speed Indicator

Hidden somewhere within the pages of this newsletter is an ASI similar to the one shown here (may be smaller). All you need to do is find the page on which it appears, specify the article or photo and send to webmaster@eaa203.com to win. If Multiple entries, only one winner will be selected from those submitted.

Winning Entries will be published in the newsletter. **One Prize Only** will be awarded for correct ASI location.

BIG Winners: ASI located on Hub of Nose Tire in Barntoons. Mathew Thompson Big Winner. See Page 2 for Aircraft Identification.



Calendar of Events

Oct 10—Regular member meeting CANCELLED.

We had hoped that the positivity rate would have dropped to 5% or lower but instead it appears to be increasing.

—Bill Siegel—



Last Month's Aircraft Identification – Lockheed Have Blue

Lockheed Have Blue was the code name for Lockheed's proof of concept demonstrator for a stealth bomber. Have Blue was designed by Lockheed's Skunk Works division, and tested at Groom Lake, Nevada. The Have Blue was the first fixed-wing aircraft whose external shape was defined by radar engineering rather than by aerospace engineering. The aircraft's faceted shape was designed to deflect electromagnetic waves in directions other than that of the originating radar emitter, greatly reducing its radar cross-section.



To design the aircraft, the Skunk Works' design team leveraged the mathematics published by Soviet physicist and mathematician Petr Ufimtsev regarding the reflection of electromagnetic waves. A

stealth engineer at Lockheed, Denys Overholser, had read the publication and realized that Ufimtsev had created the mathematical theory and tools to do finite analysis of radar reflection.

The eventual design characteristically featured faceted surfaces to deflect radar waves away from a radar receiver. It had highly-swept wings and inward-canted vertical stabilizers, which led to its being nicknamed "the Hopeless diamond" - a pun on the "Hope diamond." The first operational aircraft made its maiden flight on 1 December 1977.

Directions & Meeting Place—Cancelled

The next EAA Chapter 203 meeting will be held at the hangar located at North County Airport (F45). The EAA Hangar is found by going to the junction of the Beeline Highway (SR710) and PGA Blvd (SR786). Then go 2.6 miles NW; turn left at the airport sign, and cross the train tracks. Follow the road to the hangar, which is on the left-hand side before you get to the FBO terminal, hangar 11250-5.

Two flyable vehicles were constructed. Both were lost due to mechanical problems. Nevertheless, Have Blue was deemed a success, paving the way for the first operational stealth aircraft, Senior Trend, or Lockheed F-117A Nighthawk.

Young Eagles



Ever wondered what your neighborhood looks like from the sky? Or maybe you're

curious how airplanes even work. You might even dream about being a pilot.

If you're nodding your head "Yes" and are between the ages of 8 and 17, you're ready to take a free Young Eagles flight and see what real pilots do on the ground and in the air.

Since 1992, more than 2 million Young Eagles have enjoyed a flight from EAA's network of volunteer pilots.

For more information contact Rick Golightly, rick@eaa203.com.

Background

In the 1970s, it became increasingly apparent to U.S. planners that, in a military confrontation with Warsaw Pact forces, NATO aircraft would quickly suffer heavy losses. This came as a result of sophisticated Soviet defense networks, which used surveillance radars, radar-guided surface-to-air missiles (SAM), and anti-aircraft artillery to seek and eliminate enemy aircraft. Consequently, the Defense Advanced Research Projects Agency (DARPA) started a study on low-observability aircraft, seeking to design and produce an operational

Last Month's Aircraft Identification Continued

stealth aircraft. Five companies were initially invited, three of which bowed out early. The remaining two were later joined by Lockheed.

significant threat to US aircraft. As such, strike aircraft during the war often required support aircraft to perform combat air patrols and sup-

defense network, central to which were medium- to long-range surveillance radars. SAMs and AAAs would be set up around key locations to defend them from incoming enemy aircraft. If the loss ratio of Israel during the Yom Kippur War was experienced by NATO forces during a military confrontation with the Warsaw Pact, NATO aircraft numbers would be depleted within two weeks.

In 1974, DARPA secretly requested answers from five aircraft manufacturers regarding two considerations. The first was about the signature thresholds at which an aircraft is virtually undetectable. The second point was whether these companies had the capability to design and manufacture such an aircraft. Fairchild and Grum-

man declined to participate, while General Dynamics insisted on the use of electronic countermeasures. As a result, General Dynamics left the discussion. The remaining two companies, McDonnell Douglas and Northrop, were each awarded \$100,000 for further research.

General characteristics

Crew: 1
 Length: 47 ft 3 in
 Wingspan: 22 ft 6 in
 Height: 7 ft 6 in
 Wing area: 386 sq ft
 Empty weight: 8,950 lb
 Max takeoff weight: 12,500 lb
 Powerplant: 2 × General Electric J85-GE-4A turbojet engines, 2,950 lbf (13.1 kN) thrust each

Performance

Maximum speed: 521 kn (600 mph)
 Wing loading: 32 lb/sq ft
 Thrust/weight: 0.46–0.62



Design and development Origins

The Lockheed Have Blue was born out of a requirement to evade radar detection. During the Vietnam War, radar-guided surface-to-air missiles (SAM) and anti-aircraft artillery (AAA) posed a

pression of enemy air defenses (SEAD). The 1973 Yom Kippur War again highlighted the vulnerability of aircraft to SAMs – the Israeli Air Force lost 109 aircraft in 18 days. During the Cold War, the Soviet Union developed an integrated

Barntoons



Used by kind permission of Dennis McLane (dennisdeanmclain@gmail.com)

Board of Directors—October Minutes by Eric Flaig

EAA Chapter 203 Board Meeting Minutes

Oct 1, 2020

EAA 203 Hanger 11250-5, North County Airport, SR710 (Beeline Highway)

Attendees: Bill Siegel, Chris Wernlund, Eric Flaig

Bill Perry, Rick Golightly, Kevin Sheely, Glenn Vorress, Matt Hurley

6:45 pm Meeting Called to Order by Bill Siegel

Approve Minutes: August 2020 minutes were amended & approved

Treasurer's report: Not presented.

Young Eagles:

Mathew is ready for his check ride. Rick is looking for the next candidate. Jack is moving. Rick is conducting Ground School on Tuesday Evening's 7pm using Google Meet. Anyone can attend.

General Meeting

- **Motion:** Conduct a general meeting in October contingent on a Covid19 infection rate less than 5% locally with a declining trend.
 - An effort will be made to have an airplane exhibit and presentation T6 or light sport.
 - The updated ByLaws will be voted on.
 - The chapter will be accepting nominations of President and Treasure.Proposed by Bill Siegel. Approved: unopposed

Hanger Access:

- **Motion:** Purchase and install two battery-powered internet cameras to monitor hanger activity. These will be used to track the activity in the hanger. Bill Siegel will purchase the cameras and Kevin and Matt will install them.
Proposed by Chris, seconded by Bill S., Approved unanimous

Chapter Bylaws

The bylaws were discussed and the intent is for the chapter to adopted the EAA Bylaws template with minor changes.

- **Motion:** Present updated Bylaws to the membership for approval. The Bylaws still require minor editing. The Bylaws should include the immediate Past President.
Proposed by Bill Perry, Seconded by Eric Flaig, Approved: unanimous

Elections

The elections are to be held at the annual meeting in November. The new Bylaws call for two officers in alternating years. This year the chapter will be voting on President and Treasure. A Nominating Committee (Bill, Chris and Eric) has been appointed.

Other news:

- The Chapter appears to have found an adequate list of CFIs for YE
- The simulators have Operating Instructions.

Meeting Adjourned: 8:00 pm Eric Flaig Recording

EAA Chapter 203

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|---------------------|----------------|
| President | Bill Siegel |
| Vice President | Chris Wernlund |
| Secretary | Eric Flaig |
| Treasurer | Bud Smith |
| Past President | Bill Perry |
| Program Director | Scott Thatcher |
| Membership Chair | Kevin Sheely |
| Young Eagles | Rick Golightly |
| Librarian | Ana Scaglione |
| 501(C)3 Coordinator | Bud Smith |
| Newsletter | Scott Thatcher |

Tech Counselors

| | |
|----------------------|---------------------------------------|
| Composite & FWF..... | Bill Perry b.perry@eaa203.com |
| Composite & FWF..... | Spencer Gould spencer@eaa203.com |
| All..... | Sherman Corning sherman@eaa203.com |
| Flight Advisor..... | Miguel Duran propilotmd@yahoo.com |

Meetings

The Chapter normally meets monthly at 9:00 am on the second Saturday of each month at hangar 11250-5 at North County Airport. Guests are welcome to attend two meetings but are expected to join the Chapter at the third. Dues are \$35 per year.

Notice

A COPY OF THE OFFICIAL REGISTRATION AND FINANCIAL INFORMATION MAY BE OBTAINED FROM THE DIVISION OF CONSUMER SERVICES BY CALLING TOLL FREE 800-435-7352 WITHIN THE STATE. REGISTRATION DOES NOT IMPLY ENDORSEMENT, APPROVAL, OR RECOMMENDATION BY THE STATE.

Newsletter

Contributions need to be in the editor's hands by the last Wednesday of the month preceding publication, unless the moon is full, in which case the deadline is the Thursday preceding the first Wednesday prior to the next scheduled meeting of the Editor's staff. **Be an Author!! Send us something.**

Other Stuff

Board of Directors Meeting

Please contact President Bill Siegel for time and place of each monthly meeting.

Editor's Report

Sept 2020, Newsletter.
99 Email Notifications Transmitted.

Membership

54 Current Paid Members
03 Honorary Members

Advertising

Two and one-half column-inches costs \$5.00 per month. A half-page ad is \$15.00 per issue. Digital artwork or photos are preferred. Contact the editor for further details.

Chapter 203 members with email addresses on file will receive email notification of the link to the on-line edition of "Hangar Talk". Send your email address to the editor at Scott Thatcher, 423 SW Talquin Lane, Port Saint Lucie, Florida 34986. 561-818-0499.

Disclaimer

The content of this newsletter is provided for entertainment only. No claim is made, nor assurance given, for the accuracy of the material presented, nor do we verify anything before we print it. **Send rumors.**

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