



AMA #1256  
**2012 Club Officers**  
 President: Chet Thayer  
 VP: Ron Becker  
 Treasurer: John Gardiner  
 Secretary: Mike Hunter  
 Editor: Tim Mihalski  
 District IV AVP: John Kirchstein  
**Volume 39 Issue 4**



Official Newsletter of the  
**FIRST STATE R/C CLUB**  
 Established 1973 – An AMA Gold Leader Club  
<http://www.firststaterc.org>



**APRIL 2012**

**UNOFFICIAL MARCH MEETING MINUTES**

**Members in Attendance:** John Gardiner, Joe Berry, Mike Hunter, Ron Becker, Chet Thayer, Frank Donnelly, Tim Mihalski, Charlie Hruska, Bill McKibben

**Show and Tells:**

There were not show or tells.

**MINUTES:**

**Call to Order:**

- President Chet Thayer called the meeting to order at 7:38 P.M.

**Remembrance:**

- Chet Thayer offered the club's condolences to the family of George Shertenlieb who passed away since our last meeting. George had been a long time member of the club and built the aluminum runway direction arrow that we used for several months until it was stolen.

**Reading of the Minutes:**

- Mike Hunter summarized the minutes from the February meeting. The minutes were then accepted as summarized.

**COMMITTEE Reports:**

**Treasury Report:** John Gardiner gave the following report

Cash Balance

Editor's Note: See John for details...

Dues collected for 2012 total \$xx.xx. The Club currently has 21 regular, 14 senior and 3 junior members. Membership for 2011 was 23 regular, 16 senior, and 4 junior members. The budget for 2012 was for 21 regular, 16 senior and 3 junior members.

Receipts for the two months of 2012 total \$xx.xx. 98.7% of the receipts are from dues assessments.

Disbursements for the two months of 2012 total \$xx.xx. Disbursements for February were \$xx.xx for AMA dues and \$30.00 for intro-pilot members.

The report was accepted as given.

- **Safety Report:** There was no safety report.
- **Field Report:** There was no field report. However, this year Field Day will be Saturday April 7<sup>th</sup> (rain date April 14<sup>th</sup>). Members should bring tools such as

**MEETING MINUTES continued...**

shovels, rakes, hatchets, work gloves, etc. Planned activities will include:

- Erecting two new PVC pit barriers like the ones we installed last year
- Servicing the lawn mowers and cutting grass
- Surveying drainage ditch and possibly repairing it
- General refuse clean up
- Possible branch trimming

**OLD Business**

There was no old business.

**New Business**

- **Disbursement Authorizations:**
  - Ron Becker was given the go ahead to purchase the materials needed to build the two new pit barriers
  - Joe Berry was given authorization to schedule the field to be rolled
  - John Gardiner was give the go ahead to arrange for the Port-a-John to be put in place the first week of April

**Adjournment**

The meeting adjourned at 8:07 pm.

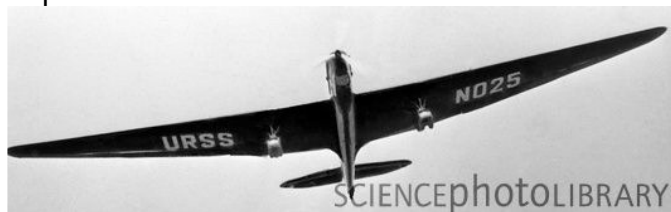


Mike Hunter  
 Secretary  
 First State R/C Club



## MARCH'S MYSTERY AIRCRAFT

### Tupolev ANT-25



Role: Experimental long-range aircraft (bomber)

Manufacturer: Tupolev

Designer: Pavel Sukhoi

First flight: 22 June 1933

Primary user: Soviet Air Force

Number built: 1 (1933) + 1 (1934) + 1 (1989)

Variants: Tupolev DB-1

Tupolev ANT-25

The Tupolev ANT-25 was a Soviet long-range experimental aircraft which was also tried as a bomber. First constructed in 1933, it was used by the Soviet Union for a number of record-breaking flights.

History and records

The ANT-25 was designed as the result of a recommendation by Kliment Voroshilov to the Revolutionary Military Council Revvoyensovyet on 7 December 1931, to build an aircraft for long range flights.

The aircraft was designed by the brigade of the Experimental Aircraft Design Department of TsAGI led by Pavel Sukhoi under the overall supervision of Andrei Tupolev. The first prototype, designated Experimental airplane RD-1, (also designated TsAGI-25, ANT-25), RD standing for Rekord Dalnosty, i.e. "Range Record") made its maiden flight on 22 June 1933, piloted by Mikhail Gromov and used a direct drive M-34 engine.

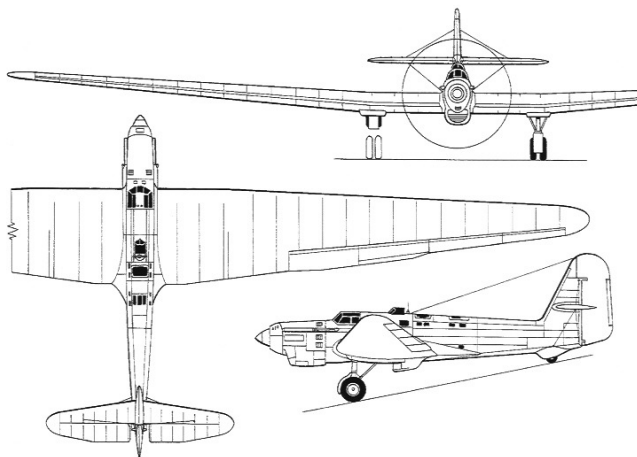
The first crew, Gromov, Filin and Spirin, began with a long range test flight in September 1934 on the second prototype, the RD-2. The RD-2 used a geared M-34R engine, which substantially increased its range. They spent 75 hours in the air, covering 12,411 kilometres (7,712 mi) in a single trip, (Moscow — Ryazan — Tula — Dnepropetrovsk — Kharkov). The aircraft was unable to return to Moscow due to a fuel shortage. Gromov was made a Hero of the Soviet Union. The flight was not recognized as a world record as it could not complete the circuit to Moscow, so could not claim the closed circuit record, while the direct distance between Moscow and Kharkov was too short for the distance in a straight line record.

Gromov and Yumashev decided to make their next long-range flight an attempt at the straight-line record. They wanted to fly the traditional long-range route via Africa and the Atlantic Ocean to South America. A crewman, Sigizmund Levanevsky, on studying some maps, suggested they fly in a completely different direction – to the north. Polar aviators were extremely popular at that time, his plan was considered plausible. The flight was cancelled in the spring of 1935 when he fell seriously ill.

The next long range flight planned, was from Moscow to the USA via the North Pole. A sloping concrete runway 4 kilometres (2.5 mi) in length, was built at Schelkovo air-base near Moscow. In the early morning of 3 August 1935, Levanevsky, Baydukov and Levchenko climbed aboard their

## MARCH'S MYSTERY AIRCRAFT

RD and took to the air. For the first 50 kilometres (31 mi), the aircraft ascended to only 500 metres (1,600 ft). They then steadily increased their altitude to 5,000 metres (16,000 ft), maintaining an average speed of 165 kilometres per hour (103 mph). After approximately 2,000 kilometres (1,200 mi), an oil leak was discovered but the aircraft was able to make an emergency landing at Krechevits near Novgorod. Levanevskiy was called to a Politburo meeting, where he blamed Tupolev, declaring that his single-engined ANT-25 was under-powered. It seemed to be the end for the aircraft.



His second pilot Georgy Baydukov, who was also an aviation engineer, disagreed and proposed Valery Chkalov for a second attempt. Chkalov was at first sceptical about his selection, as he was a fighter pilot with little navigational knowledge. Baydukov briefed Chkalov on the finer points of flying the ANT-25 and proposed Alexander Belyakov, who was the chief instructor of their flight academy, as their third crewman. Chkalov's authority was enough to convince Stalin.

In July 1936, the record was broken by Chkalov, Georgy Baydukov and Belyakov flying the same aircraft from Moscow to the Far East (Stalin's Route) in 56 hours 20 minutes; a distance of 9,374 kilometres (5,825 mi). They passed Franz Josef Land — Severnaya Zemlya — Tiksi — Yakutia — Petropavlovsk-Kamchatsky — Khabarovsk — Okhotsk Sea and landed on a beach at Udd Island (now called Chkalov Island), near the Amur River.

The next day, Pravda newspaper published a leading article "Glory to Stalin's Sokols!" («Слава сталинским соколам!»). A wooden runway was constructed on Udd island and on 2 August, the ANT-25 departed for Moscow. The trip back lasted a week with stops at Khabarovsk, Chita, Krasnoyarsk and Omsk with a grand welcome at each. Chkalov's trio became Heroes of the Soviet Union. Two islands nearby were renamed after Baydukov and Belyakov.

Chkalov's achievement became world-famous, however, the Politburo still wanted the publicity of a direct flight. Gromov was ordered to fly to Brazil on 14 August 1936 in a second ANT-25, but as he prepared for the start on 25 September, Brazilian officials denied access to the Soviet plane and the flight was cancelled.

Both Chkalov's and Gromov's crews were now destined to fly north from Moscow to San Francisco. Over 18–20 June 1937 - the same crew of Valery Chkalov, co-pilot Georgy Baydukov and navigator A. Belyakov made a non-stop flight

## MARCH'S MYSTERY AIRCRAFT

from Moscow to Portland, United States, in bad weather. At the 60 hour point they passed Seattle, after two more hours they passed Portland lighthouse on the Columbia River and headed deeper into US territory. Over the city of Eugene they found they were short of fuel and turned back for the military airbase at Vancouver, landing at Pearson Airfield. (by the other sources – Barak Airfield). The 9,130 kilometres (5,670 mi) trip took 63 hours and 25 minutes. In 1975, an obelisk was erected on the airfield to commemorate this event.

Another widely publicized feat was the Moscow - San Jacinto non-stop flight in a backup aircraft just three weeks after Chkalov's. This journey, via the North Pole, covered 11,500 kilometres (7,100 mi) and ended in a dairy pasture outside of San Jacinto, California after they had encountered fog conditions in San Diego and as far inland as March Air Force base in Riverside. The landing site is marked by California State Historical Landmark Number 989. The crew, still composed of Gromov, Yumashev, and Danilin, flew for 62 hours and 17 minutes between 12 and 14 July 1937. After landing, the aircraft still had sufficient fuel for approximately 1,500 kilometres (930 mi), enough to reach Panama. This would have involved crossing the Mexican border without the permission of FAI sporting officials.

Gromov became an unofficial Soviet Pilot No. 1, Chkalov remained the favourite pilot of the Soviet people. Joy at the achievements were tempered by Levanevsky crashing on the same route in a brand-new 4-engined DB-A.

The record set by the Soviets was broken by two British Vickers Wellesley bombers which flew from Egypt to Australia in November 1938; a distance of 11,523.9 kilometres (7,160.6 mi). The USSR did not continue the race, aviation design bureau works stalled due to repression. Tupolev was jailed, Gromov was also on the brink of arrest. Chkalov mysteriously crashed while testing a new fighter on 15 December 1938.

After Chkalov's death, Usachoyv, the Chief of the Aviation Industry Directorate Belyaikin and the director of the plant where Chkalov's machine had been built, and Tomashevich, the designer, all came under suspicion due to sabotage. Nikolai Polikarpov escaped arrest.

### **Technology**

The main reason for the aircraft's success was due to the wing design. The wide-span wings gave the aircraft good range and fuel-efficiency, they could also house large fuel tanks. The proportion of the wingspan to the chord was more than a factor of 13. Fuel was 52% of the take-off weight, the tanks had been moved from the fuselage - this allowed the wings to tension as fuel weight opposed the aerodynamics forces.

Research was conducted into special forms of vibration of the aircraft because of the longer wings and at a speed greater than some critical point - the so-called flutter effect.

To stay afloat after ditching, the ANT-25 used air-filled bags made of rubberised fabric.

According to the archives, the idea of a military variant of the RD first came to the engineer Zhemchuzhin of the 7th sector of the Soviet Air Force Scientific Research Institute. Its slow speed, low altitude, poor maneuverability and large wingspan made it a perfect target for fighters and anti-aircraft guns.

## MARCH'S MYSTERY AIRCRAFT

Only two[citation needed] aircraft were manufactured, which were followed by the Tupolev DB-1. In 1934 the aviation plant in Voronezh received an order to construct 50 ANT-36s for the Air Force. The Tupolev design bureau built an exact copy of an ANT-25 in 1989 for Monino aviation museum.

### **Variant**

DB-1 Unsuccessful bomber. Few built. Max speed 210 kilometres per hour (130 mph).

Operators: Soviet Union Soviet Air Force

### **Specifications (ANT-25)**

This aircraft article is missing some (or all) of its specifications. If you have a source, you can help Wikipedia by adding them.

### **General characteristics**

Crew: 3

Length: 13.9m (45 ft 7 in)

Wingspan: 34m (111 ft 7 in)

Height: 5.5m (18 ft 1 in)

Wing area: 87.9 m<sup>2</sup> (946.15 ft<sup>2</sup>)

Empty weight: 4,200 kg (9,259 lb)

Max takeoff weight: 11,500 kg (25,353 lb)

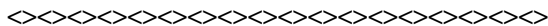
Powerplant: 1 × Mikulin AM-34, 560 kW (750 hp (later forced to 874 hp)) at 1,760 rpm for cruise

### **Performance**

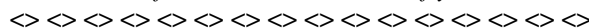
Maximum speed: 210 km/h (130 mph)

Range: 13,000 km (8,078 mi)

Service ceiling: 7,000 m (22,966 ft)



*The events listed, as well as others, can be found at your AMA's Contest Calendar Site on the WWW: go to URL: <http://www.modelaircraft.org/events/calendar.aspx> or the IMAA site at <http://www.fly-ima.org/ima/events/index.html>*  
*Others listed are from club newsletters or flyers*

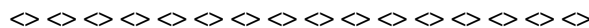


6/9/2012 - 6/10/2012 -- Newark, DE (A) ESL-SKSS SOARING CLASSIC.

Site: White Clay Creek State Park. Anthony Guide CD PH: 717-870-9684 Email: [tonyg66@yahoo.com](mailto:tonyg66@yahoo.com).

Visit: [www.skss.org](http://www.skss.org). Event 444(O). SKSS field, White Clay Creek Park, Paper Mill/Smith Mill Rd.

Sponsor: SILENT KNIGHTS SOARING SOCIETY



6/9/2012 - 6/10/2012 -- Quakertown, PA (C-Restricted) HAROLD WEIL MEMORIAL GIANT SCALE FLY IN.

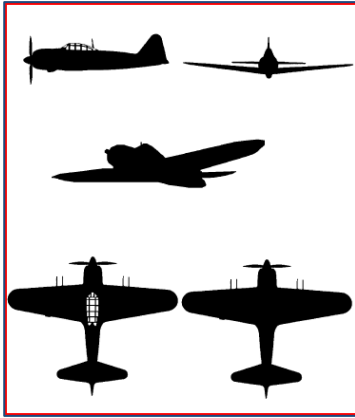
Site: Club Field. Travis Moyer CD PH: 267-374-3255 Email: [tmsdmm@comcast.net](mailto:tmsdmm@comcast.net). Visit: [www.buc-le.org](http://www.buc-le.org). Field is 1000x250' smooth grass runway. Primitive RV parking, food concession. Hotel lodging nearby. No landing fee.

Registration 8AM, flying 9AM to 5PM Sat, 9AM to 3PM Sun. After 12 noon Sunday any size airplane allowed. Vendors welcome. Sponsor: BUC-LE AERO SPORTSMEN





## APRIL'S MYSTERY AIRCRAFT



A mystery aircraft for you to ponder... silhouettes only... you can read all about this mystery ship in the May issue of *Contact*...

### IMPORTANT REMINDERS...

**Monday 07:30 P.M. 04/16/12 Club Meeting @ Stahl American Legion Post**

**Saturday 11:00A.M. 05/12/12 Friends of Bellanca (FOB ) Open House – First State Indoor Flying**

**Saturday 10:00 A.M. 05/19/12 Fuel/Electric Fun Fly at Field.-Contact: Frank Donnelly**

**Monday 07:30 P.M. 05/21/12 Club Meeting @ Stahl American Legion Post**

**Saturday 11:00A.M. 05/26/12 Friends of Bellanca (FOB ) Open House – First State Indoor Flying**

**Saturday 10:00 A.M. 05/26/12 Fuel/Electric Fun Fly at Field. (Raindate)-Contact: Frank Donnelly**

**Saturday 11:00A.M. 06/9/12 Friends of Bellanca (FOB ) Open House – First State Indoor Flying**

**Monday 07:30 P.M. 06/18/12 Club Meeting @ Stahl American Legion Post**

**Monday 07:30 P.M. 06/23/12 Friends of Bellanca (FOB ) Open House – First State Indoor Flying**



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