



**Chino Valley
Model Aviators, Inc.**



Official News Letter

AMA Chapter #3798

IMAA Chapter 705

January 20, 2014

Volume 17 Issue 1

www.chinovalleymodelaviators.org

*"To create an interest in,
further the image of, and
promote the hobby/sport of radio
controlled aircraft"*

Inside this Issue...

- President's Message 2
- Name That Plane 2
- Field Photographs 3 & 4
- Check Your C. R. A. P. 5
- October Meeting 6
- Safety is Always an Issue 7
- Member Project 7
- Air Power Classics 8
- The Stipa-Caproni 9

VIC BLOCK'S "COOL" B-25



There is nothing like a WWII RC twin bomber. This is Vic Block's foam B-25 on a fly-by. With two electric motors one can feel safer knowing one engine suddenly going out is a slim possibility.

I knew it would
be a good day
when I woke up
and didn't see a
tag on my big
toe!

Unknown

John Stewart's Patriotic Tiger 60



Support Our Local Hobby Shop

**VALLEY
HOBBY**

The Safeway Center
Prescott Valley, AZ
MAX & CINNIMON BANDY
THEY SUPPORT OUR CLUB



RC Club Chatter: CVMA President, Randy Meathrell

The January CVMA meeting was a rousing success with great show and tell, food and friendships. Both *Jay Riddle* (Past President) and *Bob Shanks* (Newsletter Editor) received much deserved plaques for their contributions to the club.

In addition, both *Bob Shanks* and *Rick Nichols* presented current President *Randy Meathrell* with some not exactly flattering awards, a Frisbee and a

cartoon.

Three new members were at the meeting and our membership has reached 100. Thanks to all who have joined, the officers will try their best to make sure you have a fun time flying your models this year.

An important Safety warning: two members have tripped and fell entering the cabana from the west where there is a slight step up. Please watch your

step in this area and we will see if there is anything we can do to improve the footing.

Please make sure to lock the gate if you're the last person to leave the field. The gate has been found open several times recently.



MARK YOUR CALENDARS
Check AMA Journal

August 23:

Regional Pro Air Races at our field.



CVMA MEETINGS



Third Wed. of each month at 7pm.
Prescott Airport

Last One to Leave the Field:
CLOSE AND LOCK THE GATE!

CVMA MEMBERS Kick In Your Afterburner...



BUILD SOMETHING, BRING IT TO OUR NEXT MEETING!

CAN YOU NAME THIS PLANE?



Answer on page 9

CVMA NEWSLETTER

Published Once a Month

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- President — Randy Meathrell
- Vice President — Steve Shephard
- Sect. /Treas. — Rick Nichols
- Flight Instructor — Randy Meathrell
- Safety Officer — Charlie Gates
- Board Member — Bob Noulin
- Board Member — Don Crowe
- Newsletter Editor — Bob Shanks

CLUB PILOTS AND THEIR AIRCRAFT

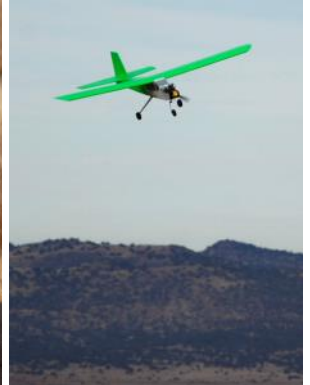
John Stewart's "Space Walker"
The pilot went to the dogs!



Bob Shanks"
Hawker Tempest



Javier Valenzuela's Green Machine
(LT-25).



Craig Hale's FW-190



Glenn Heithold's Spitfire.



John's Tiger 60 Pilot is screaming for action!



John's Tiger 60 by Carl Goldberg has a Saito 72 engine, he uses JR servos.



CVMA Field Panoramic during our last Regional War Bird races.

Graham Johnson's "Peak" from Nitro Planes.



CLUB PILOTS AND THEIR AIRCRAFT

Rick Nichols and Randy Meathrell getting ready for test #3 of Rick's School Plane. She flew but needs a tweak or two.



Bob Wurth's Pete-N-Poke with Mikey and Minnie pilots. Very cool Bob!



Jim Ayers Quad Copter.



George Walker's speedy Stryker being launched by Randy Meathrell.



Jay Riddle's big electric.



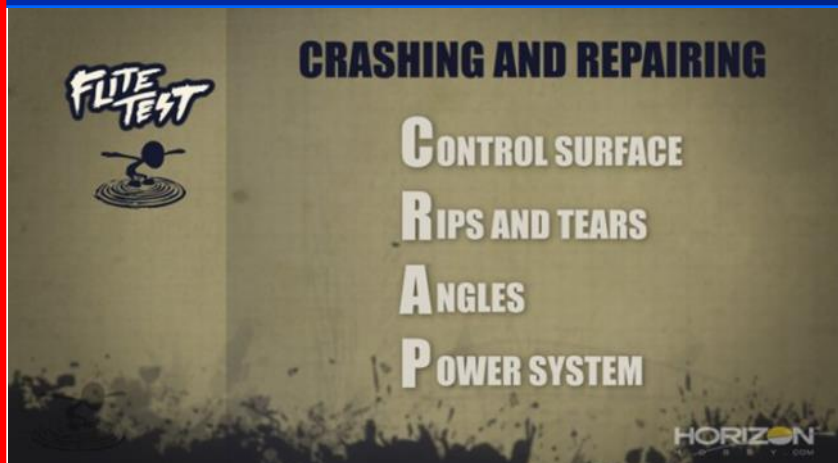
One of our wonderful Arizona sunsets, come fly with CVMA.



Always Check Your CRAP:

(Control surface, Rips & tears, Angles, Power system)

From *Horizon Hobby*



The most common things you will experience from a crash are:

- Bent shaft
- Motor angle / firewall cracked
- Dirt in motor
- Stripped servos
- Loose control horn, wires or prop
- Stressed, bent or broken prop
- Broken or crinkled fuselage
- Damaged Battery (very dangerous)

What to do if you crash:

First, remain calm. Remember, everyone crashes. After you crash, check your C.R.A.P.

Control surfaces - Pull on everything, make sure everything is secure and moves properly.

Rips and tears - Examine the body of your plane closely looking for rips, tears or crinkles.

Angles - Look for structural weaknesses. Check the angle of your tail and make sure it's not crooked.

Make sure angles of repaired area are the same as before the crash, even if it is not a control surface.

Power system - Check all electronic connections and make sure everything works. Turn the motor by hand and make sure it turns freely. (Make sure you removed all dirt first)

What to do For Each of These Issues

Bent shaft

1. The vibration can negatively affect your plane's performance
2. It's rare you can bend it back straight.
3. It's best to replace it or swap the whole motor

Motor angle / firewall cracked

1. Can usually be fixed with some hot glue or CA
2. Remove the motor repair and reinstall

Dirt in motor

1. You'll notice when you turn the motor by hand.
2. Remove the bell and clean it out

Stripped servo

1. Replace it

Loose control horn, wires or prop

1. Tighten or repair
2. Replace if necessary

Stressed, bent or broken prop

1. Replace it!

Broken or crinkled fuselage

1. Repair with hot glue, tape, or foam safe CA.
2. Use hot water to bring it back to shape
3. More glue does not mean more strength. Thin even glue over a tight joint is **GOOD!**

Damaged Battery (very dangerous)

1. Get rid of it!... Recycle
2. If you're not sure if it's damaged check individual cell voltages frequently.

If your aircraft is manufactured by a reputable manufacturer, common replacement parts can easily be purchased at your local hobby shop. Always try to carry extra props for your plane!

Crash Prevention: Things that cause a CRASH

1. Neglecting your preflight check
2. Too windy
3. Flying a plane beyond your ability (
4. Getting distracted / Looking away
5. Flying out of range / getting disoriented
6. Flying close or behind to objects
7. Too small of a flying field

Most of all, don't be afraid to fix your plane. Be creative with your repairs. Keep your repairs simple. Damaged areas can often be covered with strategic decoration. If it flies... you did it right! Remember: crashing is just part of the hobby.

See more at:

<http://flitetest.com/articles/beginner-series-crashing-and-repairing#sthash.ddstOyYa.dpuf>

Don Ferguson's EP Foam Cargo Plane complete with an operational cargo door!



January General Membership Meeting

The meeting was called to order at 7:00 PM by President *Randy Meathrell*. The salute to the flag was led by *Roger Calvert*. There were 42 members in attendance. Guests tonight were Dave, President of Casa De Oro Flying Club. New members present were Mike Kidd, Mike Martin and Ricky Flores.

Randy reported that again the gate has been left open a couple of times. Glenn Heithold will be building new safety standoffs for the flight line fence. Randy reminded members to announce loudly in each direct their landing and take-off intentions. It is also a good idea for others on the line to repeat these intentions so it is clear every-

one has heard it. Also announce which direction you are planning to land or take off.

The Arizona E-fest will be January 25, Randy and *Larry Parker* have room in their vehicles for anyone that may want to ride along.

Randy discussed goals for the club this year. Suggestions were school programs and *Boy Scout* programs in helping the *Boy Scouts* earn aviation badges.

Randy talked about *Dennis O'Connor's* drawing for cement additions at the east end of the flight area for the larger planes. *Jay Riddle* will follow up on that and head up the project.

Rick Nichols gave the Treasury Report and it was approved.

Randy presented *Bob Colianni* his Solo Certificate. Randy presented

Past President *Jay Riddle* and Newsletter Editor *Bob Shanks* with well deserved Plaques of Appreciation from the Chino Valley Model Aviators. Randy, as our flight instructor, was also presented a framed cartoon certificate of appreciation from artist *Bob Shanks*.

Webmaster *Don Crowe* gave a slide presentation on the mechanics of working our new website, chinovalleymodelaviators.org

We also have a You Tube site and a Facebook page.

Randy gave a slide presentation on choosing the correct motor for your airplane, and some safety tips on battery charging.

Larry Parker showed his P-40 micro-plane and his mini Quad Copter. *Bud Mellor* brought his

beautiful PBY-5 Catalina, a work in progress. *Jerry English* shared his Trainer Type Plane and *Don Crowe* showed his Smart Plane.

Milt Vought won the door prize of a \$25.00 Tower Hobby Gift Certificate. *George Walker* won an X-acto Knife Kit and a Volt checker. *Jerry Calvert* won a \$50.00 Valley Hobby Gift Certificate. *Jay Riddle* won the GLUE and a Toolbox.

Rick Nichols won a E-Flite Helicopter. *Bob Steffensen* won some clamps, *Don Crowe* won a Knife Set, *Jerry English* won a covering iron, *Jay Reynolds* won a magnetic tray and *Roger Calvert* won a Hex wrench set.

Meeting was closed at 8:55 PM.

Rick Nichols, Secretary/Treasurer



President Randy Meathrell gets a "Flight Instructor" cartoon from Bob Shanks.



Larry Parker's mini EP P-40 at right.



Bob Colianni's Award.



Bob Shanks' Award.



Bud Mellor's PBY.



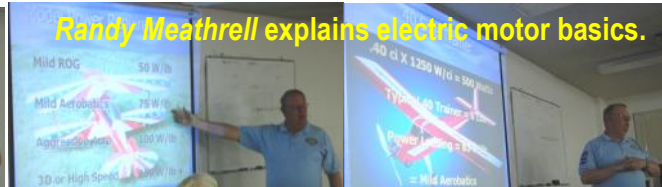
Jay Riddle's Award.



Don Crowe explains our new web site. (below)



Jerry English's Foam Trainer.

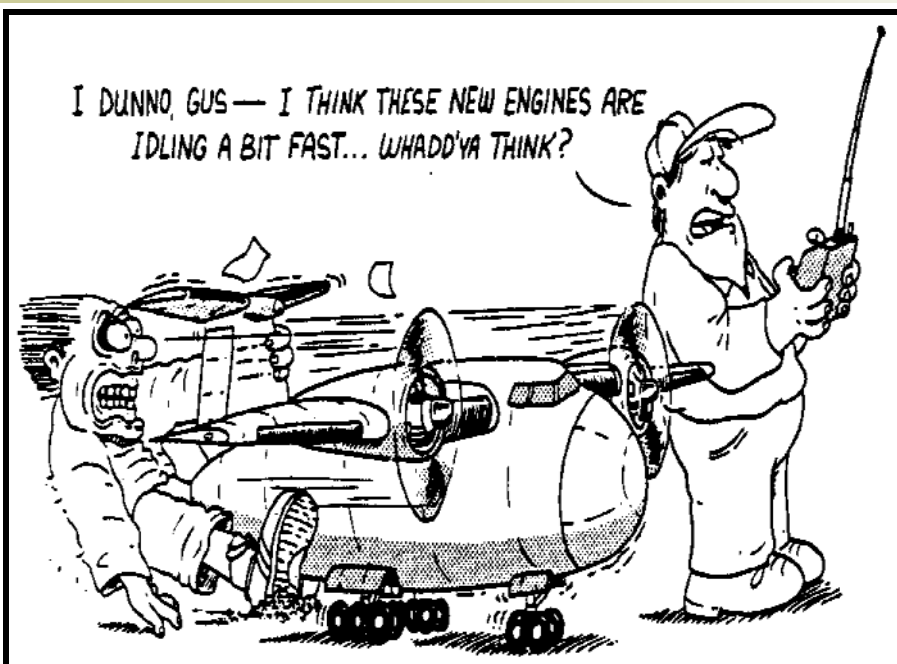


Randy Meathrell explains electric motor basics.

SHOP VALLEY HOBBY

Please shop at our only local hobby store, Valley Hobby, they support our club so well.

Cinnamon and Max Bandy go all out for our CVMA members and local RC fans.



MEMBER PROJECT: RICK NICHOLS' SCHOOL BUS



Rick's little yellow school bus plane is featured in *Model Airplane News* page 16. Rick modified this from a *Hobby King Little Bug* kit. The cartoon eyes and mouth is a great finishing touch.

Building Tip

Bending wood

Use 409 spray cleaner to bend balsa wood.
It also makes a good airplane cleaner for you and the airplane.

SAFETY IS ALWAYS AN ISSUE

As you have no doubt noticed, everyone is flying from the center fenced in area. The reason for this is to better hear our commands to "take off", "land", or "taxi" etc. Many of us don't hear well and know a number of us where hearing aids, your editor included, so we all fly in that center fenced in area for safety.

We have some lane numbers ready to be installed to help pilot separation. We also will have an added safety barrier being constructed by member *Glenn Heithold* to help preserve the fence and cut down on damage to our planes should they collide with the barrier or fence. This new safety addition is a nice idea. Please thank Glenn the next time you see him flying at the field. He is an avid experienced and expert flyer. He and member Bud Mellor,

our Regional War Bird Racing CD both live in Walker so they have a long drive to fly at the field. We have some very proactive members, what a great club.

Your editor has been told several times recently by new members and visitors that our club is so friendly and helpful. Let's keep it that way members, so greet new faces and introduce them to RC and our field. We all need to keep in the fore front of our minds this is a great and friendly hobby.

We don't fly a race track pattern so we have flyers taking off and landing both ways, up hill and down hill depending on the wind. Since our field is laid out the way it is safer to be able to judge which way you want to land. We all should practice taking off and landing both ways up hill

and down hill.

One of our biggest expenses is having a separate insurance policy on the field, a requirement by the town of Chino Valley. This is a good idea and since our lease is only \$10 year. This also provides another layer of protection for the town's land and our club. Combined with AMA insurance we are covered well.

In our AMA journal there is a good safety article about really checking used models over very closely for safety issues, like cracked props, weak or cracked motor mounts and so on.

Also an article about puffed lipo batteries in other devices need inspecting. We do a good job of safe guarding our flight batteries but what about old cell phones, and other devices with lipo batteries?

Air Power Classics

EA-6B Prowler



The EA-6B Prowler is a long-range, all-weather, electronic warfare aircraft with highly advanced electronic countermeasure capabilities for suppression of enemy air defenses. It entered service more than 40 years ago but is still operational in US Navy, Marine Corps, and joint Air Force-Navy squadrons. The Air Force, Navy, and USMC all provide crews. The aircraft offers an umbrella of protection for US forces by jamming enemy radar, electronic data links, and communications.

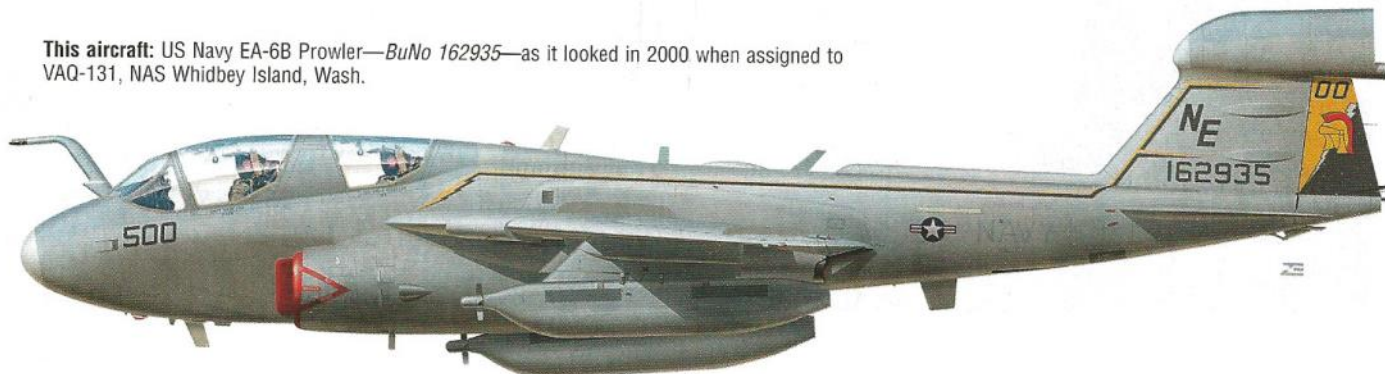
The Grumman-built Prowler was derived from the Navy's A-6 Intruder. The basic two-seat A-6B airframe was lengthened by 4.5 feet and strengthened to accommodate four crew members. The vertical stabilizer was fitted with a large pod to house surveillance receivers able to detect hostile radar at great distances. It was also equipped

with massive electronic arrays capable of jamming radars and communications and AGM-88 anti-radiation missiles for kinetic attacks on such systems. Its electronics are continually upgraded to keep pace with new threats.

The Prowler has flown in combat many times—in Vietnam during Operation Linebacker II in 1972; in the 1980s as part of Navy strikes on targets in Iran, Lebanon, and Libya; in the Gulf War of 1991; and in later operations in the Balkans, Iraq, and Afghanistan. Even stealth aircraft such as the B-2 bomber require supplemental coverage from the EA-6B in certain environments. With the retirement of USAF's EF-111 EW aircraft in the mid-1990s, the Air Force began supplying pilots and electronic warfare officers for Prowler operations.

—Walter J. Boyne

This aircraft: US Navy EA-6B Prowler—BuNo 162935—as it looked in 2000 when assigned to VAQ-131, NAS Whidbey Island, Wash.



From the USAF *Air Force Magazine*

In Brief

Designed, built by Grumman ★ first flight May 25, 1968 ★ number built 170 ★ crew of four (pilot and three electronic countermeasures officers) ★ two Pratt & Whitney J52-P408 turbojet engines ★ electronic combat systems, ALQ-99 on-board receiver, ALQ-99 pod-mounted jammer, USQ-113 communications jammer ★ munitions load four AGM-88 High Speed Anti-Radiation Missiles ★ max speed 650 mph ★ cruise speed 480 mph ★ max range 2,100 mi ★ weight (loaded) 61,500 lb ★ span 53 ft ★ length 59 ft 10 in ★ height 16 ft 8 in.

Famous Fliers

J. D. Alexander, Ken Carlsen, Dave Cronk, John Cryer, Mark Darrah, J. R. Haley, Grady Jackson, Frank Kelly, Joe Kuzmick, Willie McCool, Dana McKinney, Dee Mewbourne, Royal Moore, Don Quinn, Russell Sanborn, David Suggs, David Woods.

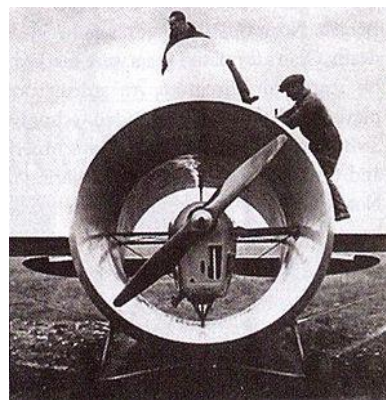
Interesting Facts

Preceded by interim EA-6A "Electric Intruder," built in small numbers for USMC ★ features canopy embedded with gold, which blocks electromagnetic interference ★ suffered 55 losses in combat or training accidents ★ posted accident rate three times that of any other Navy or USMC aircraft in the 1980s ★ flies under stringent high-angle-of-attack restrictions ★ can sense location of buried improvised explosive devices and jam their detonation signals.



An EA-6B Prowler launches from the flight deck of USS Roosevelt.

NAME THAT PLANE: THE STIPA-CAPRONI



A front view (L) of the Stipa-Caproni, showing Stipa's "intubed propeller" design in which the propeller and engine are mounted inside a hollow tube which constitutes the airplane's fuselage. The spats have been removed from the landing gear.

The Stipa-Caproni, also generally called the Caproni Stipa, was an experimental Italian aircraft designed in 1932 by *Luigi Stipa* (1900–1992) and built by Caproni. It featured a hollow, barrel-shaped fuselage with the engine and propeller completely enclosed by the fuselage—in essence, the whole fuselage was a single ducted fan. Although the Regia Aeronautica (Italian Royal Air Force) was not interested in pursuing development of the Stipa-Caproni, its design was an important step in the development of jet propulsion. The design of the Stipa-Caproni was very similar to that of modern jet engines; in fact, after having patented his design in Italy, Germany, and the United States in 1938, Stipa became convinced that German rocket and jet technology (especially the V-1 flying bomb) was using his patented invention without giving proper credit. Stipa's basic idea—which he called the "intubed propeller"—was to mount the engine and propeller inside a fuselage that itself formed a tapered duct, or venturi tube, and compressed the propeller's airflow and the engine exhaust before it exited the duct at the trailing edge of the aircraft, essentially applying Bernoulli's principle of fluid movements to make the aircraft's engine more efficient.

Stipa spent years studying the idea mathematically while working in the Engineering Division of the Italian Air Ministry, eventually determining that the venturi tube's inner surface needed to be shaped like an airfoil in order to achieve the greatest efficiency. He also determined the optimum shape of the propeller, the most efficient distance between the leading edge of the tube and the propeller, and the best rate of revolution of the propeller. Finally, he petitioned the Italian Fascist government to produce a prototype aircraft. The government, seeking to showcase Italian technological achievement—particularly in aviation—contracted the Caproni company to construct the aircraft in 1932.

The resulting aircraft—a midwing monoplane of mostly wooden construction dubbed the Stipa-Caproni was strikingly ungainly in appearance. The fuselage was a barrel-like tube, short and fat, open at both ends to form the tapered duct, with twin open cockpits in tandem mounted in a hump on top of it. The wings were elliptical and passed through the duct and the engine nacelle inside it. The duct itself had a profile similar to that of the airfoils, and a fairly small rudder and elevators were mounted on the trailing edge of the duct, allowing the ducted propeller wash to flow directly over them as it exited the fuselage to improve handling. The propeller was mounted inside the fuselage tube, flush with the leading edge of the fuselage, and the 120-horsepower de Havilland Gipsy III engine that powered it was mounted within the duct behind it at the midpoint of the fuselage. The aircraft had low, fixed, spatted main landing gear and a tail wheel, making it look as if it was squatting when on the ground. It was painted in a blue-and-cream scheme of the type used on racing aircraft of the day, and its rudder bore the colors of the Italian flag.

Test flights

The Stipa-Caproni first flew on 7 October 1932 with Caproni company test pilot *Domenico Antonini* at the controls. Initial testing showed that the "intubed propeller" design did increase the engine's efficiency as Stipa had calculated, and the additional lift provided by the airfoil shape of the interior of the duct itself allowed a very low landing speed of only 68 km/h (42 mph) and assisted the Stipa-Caproni in achieving a higher rate of climb than other aircraft with similar power and wing loading. The placement of the rudder and elevators in the exhaust from the propeller wash at the trailing edge of the tube gave the aircraft handling characteristics that made it very stable in flight, although they later were enlarged to further improve the plane's handling characteristics. The Stipa-Caproni proved to be noticeably quieter than conventional aircraft of the time. Unfortunately, the "intubed propeller" design also induced so much aerodynamic drag that the benefits in engine efficiency were cancelled out, and the aircraft's top speed proved to be only 131 km/h (81 mph).

The test flights of the Stipa-Caproni also sparked much academic interest, and resulted in Stipa's work being studied in France, Germany, Italy, and the United Kingdom, and by the National Advisory Committee for Aeronautics in the United States. France designed—but never constructed—an advanced night bomber based on a Luigi Stipa design in the mid-1930s, and various aircraft designs such as the German Heinkel T fighter of 1940 are thought to have incorporated some of Stipa's ideas and the modern turbofan engine is thought by some aviation historians to be a descendant of the "intubed propeller" demonstrated in the Stipa-Caproni. In Australia, a 3/5-scale replica of the Stipa-Caproni, accurate even in terms of paint scheme and markings, was built in 1998 and flew briefly in 2001. The replica never flew again, and now is on static display in Australia. [A possible unique RC model?](#) (From Wikipedia)