

SCALE DIMENSION NEWS

Official publication of the Scale Squadron of Southern California



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Newsletter Editor

Tim Johnson

Timothy at Johnson dot US dot com

MEETING Monday

December 12,2011

7:00 PM

Green Valley Adult Clubhouse 17250 West Los Jardines Fountain Valley, CA 92708

EVENTS





PVMAC Warbird Race AMA Expo

January 6-8, 2012 Ontario Convention Center

Horizon Hobby Meeting January 4, 2012

Chino Airport

Arizona Electric Festival January 26-29, 2012 Mesa, AZ

Prado Airpark, Chino, CA

March 10, 2012

1/8th Air Force Fly-In March 31 & April 1, 2012

Cave Buttes, AZ

RCX Expo April 28-29, 2012 Long Beach, CA

How to Get to the Meeting Place Jardines Ward N SLATER 405 Freeway North Ellis From the South - 405 North, Exit Euclid, Turn Left at end of ramp, Left on Lite at

Slater, Pass Los Jardines East, Turn Right at light on West Los Jardines. Go thru Stop sign with school on left. The Clubhouse will be 1/2 block on your right

From the North - 405 South, Exit Brookhurst North, Turn Right at ramp light to Slater, turn right, Pass Silky Sullivan's on your left, FV Police Station on your right, Pass Ward, Left on West Los Jardines at the light, the Go thru Stop sign with school on your left. Clubhouse will 1/2 block be on your right

COMMANDER'S MISSION BRIEFING

Mike Greenshields MikeG at gmail dot com

Ho Ho! Merry Christmas!

Ok, maybe it's a bit over-used, but I'm writing this on Dec 1 and I am already enjoying a joyous holiday and I hope you are too. My family is enjoying the holiday, my friends are happy and healthy, and I belong to what I think is the BEST Scale airplane club in the world! Sing Christmas carols, decorate the tree, hang the stockings, have some spiked eggnog, and don't forget to go flying (boy are we lucky to live in Southern California!)

I've been honored to fill the Commander's position for 2011. I've learned new things, made new friends, built new planes, and hopefully helped your hobby be more enjoyable. In the November meeting I was voted onto the board and at our November Board Meeting, the board appointed me Commander again. I am honored and I expect 2012 will be an EXCITING and fun year!

We're honored to have on this board some incredible people. Here's the run-down:

Officers:

Mike Greenshields: Commander Tim Cardin: Executive Officer Gordon Truax: Treasurer Joni Whittsit: Secretary

Board Members: Larry Wright

Ed Woodson Paul Lee

And don't forget our two other non-board but clearly official and NEEDED posts!

OCMA Representative: Sam Wright Squadron Newsletter Editor: Tim Johnson

I could write pages about each of these people and what they've done to support our club, but I'll sum up in short order: They are reliable, honest people who want the best for our club as well as the hobby as a whole. They are dedicated, active hobbyists who share our enthusiasm for aviation. They inspire me daily.

If you have questions, comments, concerns, suggestions, etc. please know you can always approach any of us. That's what we're here for, to serve you and our club as a whole.

Speaking of contributions!!! Tim Johnson is ALWAYS looking for help with the newsletter content. Event coverage, etc is always wel-

Contact Tim J if you have questions or submissions to the newsletter and it's content.

Technically board meetings are open to club members (as well they should be). Our next board meeting is scheduled for December 19, 2011 at 7:00pm at the Hobby People Cor-

porate Office. Contact me if you'd like to attend (so I know to let you in, the door's locked at night).

DECEMBER GENERAL MEET-ING! This is a meeting NOT to be missed! This month's focus is not show-n-tell, but rather more a celebration. We'll do the normal club meeting stuff p.d.q. and then move on to the "extended break in tradional December format" along with: AWARDS, RECOGNITION, and the SHOW-N-TELL DRAWING! Over 200 dollars in prizes will be handed out!

Once the holiday season is over, the club-events begin. January will see the AMA Convention as well as the PVMAC/Horizon special meeting. See the calendar for dates as well as the included flyers for information. The PVMAC January meeting with Horizon in 2011 had quite a turn-out with a very interesting presentation AND a TON of raffle prizes. I expect this year's presentation will be equally as interesting.

We're already planning a 2012 kick off party in February, RCX Static Scale Contest in April, AND of course the Awesome, Big, Exciting Scale Squadron Fly-In in June at PVMAC's Prado Airpark! The Squadron event schedule is filling up this year so please start planning now!

We've had a memorable year for 2011, I expect that 2012 will be even better.

Merry Christmas to you and yours.

Sincerely Mike Greenshields Commander

MEMBERS GALLERY

WHAT IS THIS AIRPLANE?



Sam Wright showing off his progress on his T-6 project using Flight Skin



Randy Wilber showing off a BH Models Prototype called Harmon Rocket



Paul Lee showing off the Ready to fly Cessna 195 club project.



Left- Tim Cardin - Center - Bob Richards - Right - Gordon Truax enjoying the meeting



Mike Greenshields showing off his completed F9F Panther from N-Tech Jets



In true Larry Wolfe style, Larry sharing "classified" drawings of landing gear for a future project



Can you identify this airplane? That is great, but don't tell your buddies. At the next general meeting we will give you a piece of paper for you to write your answer on. Your answer will go in to a drawing for the night of the meeting. In the past Hobby People have donated prizes for this drawing.

The next Squadron newsletter will contain detailed information about this ariplane for your reading pleasure.



Art Rosene showing off his major progress on his Banchee scratch build project.



Larry Klingberg with his near complete scratch built Church home built.



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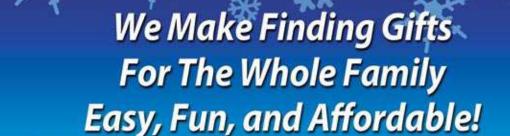
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PLANE OF THE MONTH Fiat G.55 Centauro



Undoubtedly, the Fiat G.55 Centauro (Centaur) served as Italy's best fighter design of World War 2. The type made use of a license-produced version of the excellent German Daimler-Benz DB 605A series inline engine and featured an enclosed cockpit - the latter a rarity among Italian fighter aircraft of the war. Production was delayed until 1943 but 274 total examples were ultimately produced during wartime, joined by a further 75 examples after the war. The G.55 proved an excellent fighter design, mating an advanced streamlined and aerodynamic airframe with a powerful engine to produce a robust and reliable gun platform. The G.55 was a major improvement over the radialengined, open-air cockpit G.50 Freccia fighter series.

Fiat's Giuseppe Gabrielli

Design of the G.55 was credited to Giuseppe Gabrielli. Gabrielli served as an aeronautics engineer within Fiat and had already garnered valuable experience in the field, including design of the preceding G.50. Gabrielli would gone on to complete some 142 total aircraft designs during his stellar career including that of the first Italian jet fighter - the Aeritalia G.91 - and the impressive G.222 universal military transport aircraft.

The **G.55**

Gabriell's G.55 design was a combination of smooth lines and aerodynamic refinement. Selection of the German Daimler-Benz inline only benefitted the type and immediately made her the best fighter mount Italy could field. Prior to the war, Italian pilots generally preferred their fighters with open-air cockpits for the excellent visibility and freedom but high-altitude and highspeed flight necessitated an enclosed canopy - something these "romantic" Italian airmen would have to accept moving forward. Her design was such that care was given to support speedy production methods meant to get as many G.55s into Italian fighter groups as quickly as possible. Three prototypes were eventually constructed with the first of these (both the first and second were unarmed) becoming airborne on April 30th, 1942. The third prototype served as the invaluable gun test platform. Even while the prototypes were under evaluation in operational settings, the Italian government had already contracted the type for full-scale production.

In practice, the G.55 proved a strong airframe, able to withstand a good deal of punishment and get her airmen back

home. Visibility was noted as excellent thanks to the raised cockpit and spacious canopy while her engine made her a stellar performer when pitted against her Allied contemporaries. Handling was reportedly excellent as well and made for a superior dogfighting platform to the extent that Italian pilots (and Luftwaffe pilots for that matter) greatly respected the G.55. Armament was equally impressive and formed from a collection of powerful cannons and machine guns.

The G.55 saw first combat in March of 1943 and were used in the defense of Rome itself with the 353 Squadriglia. In September of 1943, Italy officially capitulated to the advancing Allies with only 16 examples of the preproduction G.55/0's and 15 examples of the production-level G.55/1's having been completed. Despite Italy's surrender, factories still under Fascist control continued production that ultimately resulted in 274 total Centauros - many of these now being delivered to relocated Italian forces in the north. The National Republican Air Force (ANR) was set up in Fascist-held Northern Italy under Italian dictator Benito Mussolini after 1943 to continue Italy's war against the Allies. Despite their presence along this front, the G.55s in service suffered heavily from the regular Allied strikes - many G.55s being lost while on the ground. The G.55s still under fascist control were fielded by the Squadriglia "Montefusco" out of Venezia Reale. Three further G.55s squadriglias formed the 2 Gruppo Caccia Terrestre. The German Luftwaffe thought highly enough of the G.55 to field it within its own ranks from 1944 to 1945. In capable German hands, the G.55 was more than a match for even the best of the Allied fighters.

While the war still raging on in early 1944, Fiat fitted a pair of G.55 prototypes with Daimler-Benz DB 603A series engines under the new designation of "G.56". The airframe was only

slightly revised and the fuselage machine guns were dropped to save weight and allow for more internal space.

Despite improved performance for this new aircraft, it was not put into quantitative production due mainly to shortages involving the availability of the DB 603 series engines at this point in the war. One of the two G.56s survived the war and was used as an evaluation test bed by Fiat.

In post-war Europe, the G.55 continued a limited existence. Fiat reclaimed about 30 unfinished G.55s and delivered them to the rebuilding Regia Aeronautica as well as the Argentine Air Force. Argentina eventually passed on some of their used G.55As to Egypt in 1948. These were ultimately used against the Israelis in the 1948 "War of Independence", seeing combat against Israeli Air Force Avia 199 fighters.

G.55 Walk-Around

Design of the Fiat G.55 was one of the most pleasant of all the fighter aircraft involved in World War 2. The type sported clean lines and a smooth contour that were generally absent from preceding Italian fighter designs during the war. The engine was set within its compartment well forward of the design, spinning a three-bladed propeller system. G.55 construction was of all-metal. The rounded low-wing monoplane wings were situated forward of amidships, ahead of the cockpit. The cockpit was more or less centered along the oval fuselage with a raised two-piece canopy offering good vision despite its framing. Views were excellent along the sides and forward but hampered somewhat by the G.55s long nose and raised fuselage spine. The fuselage tapered off into the empennage which sported a single rounded vertical tail fin. Stabilizers were equally rounded and fitted at each side of the empennage, mounted slightly higher than the main wings. The undercarriage was wholly retractable and consisted of two single-wheeled main landing gear legs and a tail wheel under the empennage.

G.55 Armament

Armament varied slightly between the G.55 pre-production and production models. The G.55/0 sported a single Mauser 20mm MG 151/20 series cannon firing through the propeller hub. The cannon was afforded 250 rounds of ammunition. This was complimented by no fewer than four 12.7mm (0.50 caliber) Breda-SAFAT machine guns. Two were affixed to the upper engine cowling and two were fitted into the lower cowling near the wing roots. The machine guns were afforded 300 rounds of ammunition per individual gun.

G.55/1 armament was more impressive, made up of three 20mm Mauser MG 151/20 series cannons and 2 x 12.7mm Breda-SAFAT machine guns. One cannon fired through the propeller hub as in the G.55/0 with the remaining pair set in the wings. Each cannon was afforded 200 rounds of ammunition. The two machine guns were fitted to the upper engine cowling and given 300 rounds per gun. Additionally, the G.55/I was rigged to carry up to 2 x 353lb bombs or fuel drop tanks for increased range.

Power and Performance
Power for the production-level G.55/1
was derived from a single Fiat RA-1050
-RC-58 "Tifone" series engine. This
powerplant was a hanging, liquidcooled, inverted V12 inline engine that
was nothing more than a license-produced version of the German DaimlerBenz DB 605A-1 series engine under
the Fiat branding. Horsepower output
was listed at an impressive 1,475.

Performance - coupled with the excellent airframe design - netted the G.55 a top speed of about 390 miles per hour. She could gallop up to 41,000 feet and cover some 745 miles of airspace on internal fuel - more with external fuel tanks in place underwing.

Specifications for the Fiat G.55/1 Centauro (Centaur)
Dimensions:

Length: 31.92ft (9.73m) Width: 38.88ft (11.85m) Height: 10.27ft (3.13m)

Performance: (About MACH) Maximum Speed: 387mph Maximum Range: 746miles

Rate-of-Climb: 0ft/min (0m/min) Service Ceiling: 41,831ft

Armament Suite:

G.55/0

1 x 20mm Mauser MG 151/20 cannon firing through the propeller hub.
2 x 12.7mm Breda-SAFAT machine guns in upper engine cowling.
2 x 12.7mm Breda-SAFAT machine guns in wing roots.

G.55/1:

1 x 20mm Mauser MG 151/20 cannon firing through the propeller hub. 2 x 20mm Mauser MG 151/20 cannons in wings 2 x 12.7mm Breda-SAFAT machine

2 x 12.7mm Breda-SAFAT machinguns in upper engine cowling.

OPTIONAL (G.55/1): 2 x 353lb bombs or droptanks.

Structure:

Accommodation: 1 Hardpoints: 2 Empty Weight:5,798lbs (2,630kg) Maximum Take-Off Weight:8,197lbs (3,718kg)

Powerplant:

Engine(s): 1 x Fiat RA-1050-RC-58 Tifone hanging, liquid-cooled, inverted V12 inline engine delivering 1,475 horsepower.





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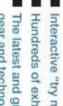
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RCX.com for event d tails, rules and to register.

between!), enter it in the RCX Battle of the Builders! This event is open or a customized foam park flyer you're truly proud of (or anything in Whether you've built a giant-scale museum quality masterpiece,



The Scale Squadron of Southern California



MEMBERSHIP APPLICATION

Membership in the Scale Squadron is open to all AMA members who are interested in safe, formal, and informal flying, including the research, building and flying of Scale R/C Miniature Aircraft. Membership Annual Dues are \$30.00 covering January 1 through December 31. Membership begins after verification of your current Academy of Model Aeronautics (AMA) Membership Card and receipt of Scale Squadron membership dues. Membership in the Scale Squadron includes a monthly newsletter and Squadron name tag. Meetings are the second Monday of each month at 7:00pm.

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