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March 2005

Hasegawa 1.72 scale FW-190D-9 by Fletcher Warren.

## Thirty Revolutionary Years Fifty Top Aviation Stories

By George Mellinger
Not long ago, I was challenged to maybe list the ten biggest aviation developments in the last thirty years. I got thinking and counting, and ended up with a top 50 list. Some of these developments are important mainly within aviation, while some others have changed our entire culture. I've tried to put these in a generally chronological order, including both civilian and military, and space, both design and use.
I invite you to contact me with reactions, additional suggestions or challenges to what I have here. If there is a good response, I may turn it into a follow-up column.

1. Advent of airline hijacking as a terrorist tactic by al-Fatah/Black September, and its adoption by other groups.
2. Airline deregulation in the USA with an impact on foreign carriers as well, resulting in lower fares and more competition among airlines. 3. Rise of affordable mass air
travel, particularly including affordable intercontinental air travel for the masses. Even in the 1970s international air travel was still a major expense which only a few people could plan on doing more than one in a lifetime, if at all. Now it is available for the masses, at least in advanced western countries. This has facilitated expanded international business, and also a widening of international exposure for Americans, with a great influence on the evolving culture. It has also changed the nature of the airlines and the airline business. Remember when commercial flying was glamourous and stewardesses were all babes? Now flying is just a means of getting somewhere, and cabin attendants are no more than that.
3. A counter-intuitive rise in commercial safety standards and airline safety records. We are flying more now, but crashing less, not only relatively but absolutely. And though figures are not available, it seems as if the has also been a corresponding decline in other incidents not resulting in an actual crash.
4. The collapse, bankruptcy, merger
and disappearance of famous airlines. - Pan-Am, Braniff, and others. 5. The rise of new airline start-ups, regional carriers, and cut-rate airlines, Sun, Virgin Atlantic, Jet Blue. Even major airlines have begun to organize cut-rate subsidiaries. 6. The air traffic controller strike and the defeat of PATCO in 1981. Not only has this had consequences for commercial aviation, it also had major consequences for the organized labor movement, consequences which are still playing out. The friends and foes of labor unions have different opinions on whether this was a disaster or a good thing, but the effect stretches beyond commercial aviation.
5. Mass introduction of helicopters into civilian life - from traffic spotters to police surveillance and patrol, to rescue of civilians in the wild, to aeromedical evacuation and air ambulance service. (This is a personal favorite - In May 1972 I spent a couple of weeks detailed to Washington to work on a Veterans Administration medical planning task force. I took the opportunity to suggest and promote the idea of using the large numbers of helicopters
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Article Submission Deadline: 22nd of each month.

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## TCAH This Month

The monthly meeting will be held Saturday March 12, at Fleming Field, South St. Paul, beginning at 1:30 PM. Socializing begins about 12:30. So come early. Forty years ago this month the US Marines arrived in Da Nang marking he beginning of serious US involvement in Vietnam ground combat. So we will honor the Vietnamese conflict. I promise to bring the bad guys. We hope to see a lot of Hueys and Phantoms, and maybe even an ACAV. Be numbah one meeting!

## General Meeting Minutes

February 12, 2005
by Johannes Allert
Ken Hornby called the meeting to order at 1:30pm. Our newest member is Bob Maderich, who is also the President of the RPM Car Club. Welcome to the dark side Bob! The lighting is better over here! Old Business -
TCAH Polo Shirts - Members wishing to sign up for a TCAH Polo shirt with a knit logo, please see Johannes Allert.
Noel Allard has now moved to Park Rapids, MN. He has been honored as a TCAH Lifetime member, and will still be down here once in a while for a visit where he will always be welcome.
White Elephant Contest in April Tom Norrbohm said that he received 13 entrants. Entrants will be judged at the April meeting. Zumbrota Valley Model Contest Johannes Allert and Bob Maderich gave their critique of the contest which was held last week. Every year they get better.
Nordic Con - Steve Macey \& Johannes Allert gave a brief update on Nordic-Con. Members are encouraged to bring good kits for the contest raffle to the April meeting. Trophy sponsorship is encouraged. Remember, this year's theme is Victory in the Pacific. The sooner we get sponsorships, the sooner they can be posted to the web. New Business Due to the overwhelming response, Sun Country has added another one-day flight to the Smithsonian Annex outside of Dulles Airport. One day flight to depart on Thursday 20th of April at 06:30 and return $19: 30$. The cost is $\$ 198$. Call 1-800-359-6786.
John Roll gave update on a new IPMS Chapter in Mankato and that we received a thank you letter from the Atlanta Club for sponsoring a trophy this summer at their IPMS National Convention.
TCAH voted overwhelmingly to donate $\$ 1500$ in supplies to the 3 overseas model club formed for R \& $R$ for the troops. Each club will received $\$ 500$ in supplies courtesy of

Roll Models. Johannes Allert will contact the clubs to ask what needs they have.
Minnesota Air Guard Museum \& Fort Snelling Military Museum - Ray Petersen gave update on the Minnesota Air Guard Museum which is set to reopen in April. Donations and volunteer help needed there as well as at Fort Snelling Military Museum which is a part of 200 other branches located throughout the USA. Ray also showed a 9 minute promotional video on the Fort Snelling Military Museum. Members interested may check them out on the web: www.fsmm.org or call 952-469-5090. Their dues are $\$ 30$ per year.
Military Collectors Show will be at the State Fairgrounds April 16-17 at the World of Technology Building. $9 \mathrm{am}-5 \mathrm{pm}$. Cost is $\$ 5$.

TCAH Annual Awards -
So far the candidates that have
been nominated are:
Modeler of the Year -
Fletcher Warren
Dennis Strand
Steve Rewey
Bernie Kugel
Ken Jensen
Newsletter Article of the Year -
George Mellinger - Russian Signals
Dave Pluth - Spray booth Logic
Terry Love - Airline Chatter
Frank Cuden - Master Modeler
Dave Heffernan - Support your local hobby shop
Steve Erickson - Between the Lines modeling tips
Rivk Verner - Everyone Remem-
bers - September 2001
Historian Of the Year -
Terry Love - Chuck Doyle Profile George Mellinger - Translation of Russian Articles
Show \& Tell was held.
There was no raffle.
The meeting adjourned at 3 pm .

## Business Meeting

February 12, 2005
By Johannes Allert
There was no business meeting this month. There will be a business meeting in March after the general meeting.

## TCAH Calendar

April - April Fools. Bring models of failed aircraft and flawed concepts. Defiant, Me-210, and anything else that was a flying bad joke.

May - May 1940. We do not honor, but focus on the French Air Force.

June - The Korean War started this month, so bring Sabres, MiGs, and other models of the era.

July - A Hot month so bring jets of the Middle Eastern wars, Israeli, Syrian, whatever.

August - A vacation Month - So we recognize the airliners that take us there.

September - Contest Month. No theme.

October - School is under way, so this month we focus on trainers

November - Club auction \& elections - No theme.

December - Another chilly month, so naturally, Aircraft of the Cold War.

## Treasurer's Report February 2005 by Tom Norrbohm

As of 2-22-05 we have $\$ 7397.62$ in the kitty. Be advised that this amount will drop considerably when the club donates $\$ 1500.00$ to the 3 Baghdad model clubs that the club approved last month. With the upcoming Nordic-Con, the club needs to stay focused on future expenditures and all this assumes we break even in September at Nordic-con.

## Join the TCAH Mailing List!!

We've setup a e-mail list for TCAH members to keep up to date on the current club events and news. You can join by going to the TCAH website www.aerohistorian.com/newsletter and entering your e-mail address.

## From the President <br> By Ken Hornby

It's been a relatively quiet winter for me on the modeling front. I had promised myself that I would finish at least one of the five models now scattered across my work bench, but I have to admit it doesn't look as if I will be anywhere near finishing any of them anytime soon. Hopefully I can get at least one of them done in time for NordiCon in September. I don't have any solid excuses, but l've been pretty busy the past several months. A word to the wise: Don't be your own general contractor.
Good news for those of us who missed out on the trip to the NASM Udvar-Hazy center in Washington DC. There has been another oneday trip added. It is scheduled for Saturday, April 23. I couldn't find any mention of it on Sun Country's website, so you'll have to call their customer service line to book it. Total cost is $\$ 198.01$. Although there were about fifteen members who expressed an interest at last month's meeting, at this time I know of only four that are going. Well, now's your chance. It promises to be a good time.
If you missed last month's meeting, the Udvar-Hazy trip update wasn't the only thing you haven't heard about. We voted to send modeling supplies to three military modeling clubs located in Baghdad, Diego-Garcia, and Afghanistan, with a spending cap of $\$ 500.00$ per club. We have been in contact with each club and are waiting to hear from them regarding what their specific needs are.
Congratulations again to Noel Allard, our latest Life Member. From the club's beginning Noel has been involved in almost every facet of TCAH's existence. He has relocated away from the cities, but we hope to see him from time to time at our meetings.
On a related subject, we will be taking final nominations and voting for club awards at this month's meeting. Wrack your brains one last time for nominations for Modeler, Newsletter Article, and Historian of the Year. The awards will be pre-

## Contest Calendar

3-5-05 IPMS Great Plains Contact: Franc Ciccarell FCiccarell@aol.com

4-2-05 IPMS Plastic Surgeons
Valley Free Chruch Des Moines, IA. Contact: Greg Metge gmgha@mchsi.com

4-9-10- Sioux Area Scale Model05 ers

Show Your Work/Share Your Skills Old Courthouse Museum Sioux Falls, SD

4-16-05 IPMS Mad City Modelers Radison Inn 512 Canyon Drive Madison, WI Contact: Jim Turek jjtmodel@yahoo.com

4-29-30- R5Con Hosted by
05 IPMS Quad Cities
Holiday Inn
Davenport, IA Contact: Glen Broman grbroman@aol.com

7/20-23- IPMS National Hosted 05 by IPMS/Metro Atlanta Cobb Galleria Convention Center
Atlanta, GA
www.ipmsusa2005.org
9-10-05 NordicCon Twin Cities AeroHistorians South St. Paul, MN www.aerohistorians.org
10-29-05 IPMS Glue Crew
11-12-05 IPMS Butch O'Hare

sented at our April meeting.
Finally, l'd like to hold a business meeting this month, with the main topic being discussion of our contribution to the three overseas military modeling clubs. In the event we haven't heard from them at the time of our meeting, l'd like to finalize just what items we will be sending them

## On The Show Table

January 2005

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Aircraft
Frank Cuden
    Special Hobby 1/72 F-2G
Steve Hustad
    Airfix 1/72 A6M-2 Type 11
    Hasegawa 1'72 A6M-5 Type 52
Ken Jensen
    ? 1/48 P-40
Jeff Kurth
    20th Cent 1/18 P-38
Dave Pluth
    Hasegawa 1/48 Ki-44 Tojo
Bill Read
    Hasegawa 1/48 Corsair (WIP)
Dennis Strand
    Hasegawa 1/48 Rufe
Fletcher Warren
    Hasegawa 1/72 FW-190D
Armor
Johan Allert
    DML 1/72
    Italeri 1/72
Bernie Kugel
    DML 1/35
    DML 1/35
    Maquette 1/35
    Maquette 1/35
Dave Pluth
    Mirage 1/35
Bill Read
    Italeri 1/35
    Tamiya 1/35
    M-975 HMVEE
Fletcher Warren
    Fujimi 1/76
Ships
John Higgins
    Arii 1/80
    Forrestall
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Airline Chatter
By Terry Love
Boeing officially renamed their 7E7
Dreamliners to the Boeing 787.
Boeing now has 191 firm orders for
the new 787 Dreamliner from 15
airlines.
Boeing announced that 6 Chinese
airlines - Air China, China Southern,
China Eastern, Hainan Airlines,
Shanghai Airlines, and Xiamen Air-
lines - have ordered 60 of the new
Boeing 787 Dreamliner.
Spice Air, a new airline in India,
ordered 20 Boeing 787 Dreamlin-
ers.
Ethiopian Airlines bought 10 Boeing
(Continued on page 6)
(Changes Continued from page 1) and pilots made surplus by the end of the Vietnam war, to create a network of civilian air-medevac services, everything from transporting patients between specialty hospitals to evacuating casualties from the middle of highway road accidents, of the sort which make ground ambulance service inaccessible or slow. My suggestion was dismissed out of hand.)
8. The rise of transnational aircraft design by international consortia beginning with military jets such as Jaguar and Tornado, and moving on to helicopters, and Airbus airliners.
9. The gradual collapse and disappearance of the aircraft design/ manufacturing industry, with many famous companies disappearing or merging, and then merging yet again, not only in America but also in Europe.
10. The introduction of turbofan jets.
11. Introduction of World's largest aircraft by Antonov - the An-124 and the An-225.
12. Massive use of composite materials as substitutes for metal in airframe construction
13. Fly-by-wire and glass cockpit technology.
14. Other advances in avionics and computerization. For the first time in history a fighter aircraft's overall power is not determined by superior speed, climb, dive and turn, but rather by its avionics suite and weapons complex, which could grant an aircraft of "inferior" performance total supremacy over an opponent with superior flight but poorer weapons system capabilities.
15. Really a result of the previous item, but of sufficient impact as to justify its own listing. - Repeated upgrading of combat aircraft types leading to many aircraft lasting much longer than ever anticipated. 16. The much longer development period for new aircraft. During the Great War, aircraft manufacturers cranked out their new designs in less than a year, and each spring there was a new crop of aircraft arriving at the front. During the World War II era, it generally took a
couple of years to design, test and introduce a new fighter. Today, the process may take a decade for an aircraft to enter service.
17. The unexpected survival in operational units of the B-52, Tu-95
Bear, and C-130. We now have effective warplanes which are not only older than their crews in date of design, but also in terms of individual flying airframes. During the classic age of sail, a ship of the line, with proper care, might remain useful for sixty to eighty years. The Buffs and Bears may equal that record.
18. Deliberate development and fielding of the F-16 and F-15 as a low-high technology \& cost, force structure package.
19. Maturity of the AWACS concept and operational use.
20. The evolution of aerial weap-
ons. Truly effective AAMs, with SARH, ARH and other tracking methods effective at ranges beyond IR.
21. Fire-control systems with multiple target tracking and kill capability, and real beyond-visual-range shootdown capability. (Remember when a pilot had to get within about 30 meters of a Bf-109 and could shoot him down only one at a time?)
22. Development of helmetmounted sights, particularly the Russian introduction of AA-11 Archer close-range AAM with capability of launching at 90 -degree-from-target launch angle.
23. Development of accurate PGMs, with minimal CEP, particularly Laser-guidance. Also including the same accuracy incorporated into long range air-launched cruise missiles.
24. Stealth!
25. Design and introduction of first Chinese combat aircraft, even if partially based on Russian technology) - the A-5, derived from the MiG-19 and F-8 Finback.
26. The Desert Shield/Desert Storm air campaign. This had international repercussions both politically and militarily, and also was a decisive factor in the restoration of the American military's image domestically.
(Continued on page 7)

## Spraybooth Logic <br> Tough Hop <br> By Dave Pluth

"Winners have simply formed the habit of doing things losers don't like to do." - Albert Gray.

Wow, think about that quote. I ran across this on an internet search. I was actually looking for the Patton quote about the guy who finishes second just being the first loser (from the movie Patton), but couldn't find anywhere where that was actually attributed to him other than in the opening monologue of the movie. So this Albert Gray quote will have to do for the purposes of this article.
Another favorite quote of mine having to do with competition is from a High School football coach named George Thole. George was a very successful coach at Stillwater high school through the 70's, 80's and 90's. A few years back Minnesota went from a two class state basketball tournament to a 4 or 5 class basketball tournament. George was asked, based on his experience with football doing the same thing several years earlier, what he thought about this innovation. George answered to this effect... "how about we send out a championship trophy to every school in the state and at the end of the year, those that don't feel they deserve it can send theirs back."
Recently a young man named Cash Eggleston set the Minnesota state Basketball record for most points scored by an individual by scoring 90 points in a single game. Rather than singing the praises of a young man who achieved breaking a record that has stood since 1958 (the old record was 70), everyone is talking about the "sportsmanship" of "running up a score".

I think this is where we are going with model contests. Chicago style judging and category splits down to pilot's first names have started to dilute winning awards at contests simply to make guys feel better about competing.
Let me start by saying, contests aren't for everyone, in fact I cut back on my entries a while back,
mainly because I didn't enjoy it as much as when I started. Occasionally l'll throw a model in to help support the entry or to partake in some special club event, or with our group entry on J-aircraft, but I found long ago that my disposition isn't one that works well with contests.
However, being at contests without much to do gives me a great deal of time to wander around and listen to what is being said. I also have had the opportunity to judge (which I enjoy doing a great deal since it is a real learning experience) at several of the contests that I have attended.
The most common complaints that I hear are about either a) the awards or b) the judging. The awards are too big (won't fit in my display case), too small (you can't see it in the display case), too cheap (I paid \$19 entry fee and got this crappy trophy), too expensive (they could decrease their fees if they went to a simpler trophy), too plastic (couldn't they afford something with metal on it) or too weird (what where they thinking).
Then comes the judging complaints. The judges have no idea what they were doing, anything about the subject, anything about modeling, anything about anything! People can't believe that the kit they spent forty hours detailing the cockpit on didn't win over something that was out of the box!! What they fail to mention is that they didn't fill in a seam line on the spine of the kit or on the wing, which dropped them from first, to fourth.
To try to appease the nonappeasable people we have found some new ways of judging. We have changed the rules to accommodate and give out more awards for less deserving items. No longer do judges withhold placements, which they did ten years ago, we now give awards out to one-third of the contestants, whether they deserve them or not.
This one-third rule is called Chicago style judging. A handful of judges are given scorecards and told to put a checkmark by the 10 best models (or whatever about one-third is). They are not asked to rate them, nor are they asked to
comment on them, just pick the ten best. These numbers are compiled and some mathematical break point is looked at and a number of firsts, a number of seconds and a number of thirds are broken out. So in essence you can have the tenth best model on the table and end up third. Great system, isn't it?
In the category split method, categories are split down to the point where there are 8-10 models in each category. Now the categories are pretty much made up on the spot. For instance $1 / 48$ th scale allied aircraft with the name thunderbolt flown by a guy named Ted would be a valid category, well maybe. The splits try to fit stuff in. 109s would be a common split or German aircraft may be another. Basically contests try to break things out enough so that they can give out a maximum number of awards.
So what's wrong with this? After all, the more awards given out, the more happy people leaving the contest, right? Well, kind of. Folks may be happy, but did they really win anything? Sure a few guys did really deserve what they got, but a bunch of guys really didn't. Having judged quite a few of these things, the first three or four out of ten are pretty easy, after that you are picking things that have at least some significant flaws in them just to fill out the scorecard.
Winning an award at a contest should be reserved for the best of the best, not for some mythical number or category that was chosen out of the blue. For the rest of the people all I can say is tough hop. You lost.

Now before you start calling me or e-mailing me, let me finish. The reason you went to a contest in the first place is to see how you compare. How do your skills measure up with other modelers? How does your research or scratchbuilding ability measure up? How about your finishes, are they good enough to win?

Now those are all nice questions, but the big question is really "what do I have to do to win?" There are guys out there that simply can't look
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## The Long Drag - A Short History of British Target Towing by Don Evans reviewed by Gary Chambers

Target towing was without a doubt one of the less glamorous assignments for military aviators. The author states in an early chapter that he found that most manufacturers seemed to look on it as disgrace if one of their aircraft had been used for target towing and did not want to admit it. However, lack of glamour does not necessarily mean dull or mundane. A target towing crew had just finished providing gunnery practice for a battery of naval guns on the Isle of Wight. Upon ceasefire and starting a slow turn back to base in Somerset, Some hefty looking tracer started shooting up past the port mainplane. The usual profanity from the pilot to the matelots down below produced the reply that it wasn't them. Not only were we out of range, we were out of sight. Get rid of the target for Christ's sake!" the pilot shouted at me. "Look down there!" Straining to look over the side, I was most upset to see a German E boat pumping everything he had at us. This is one of the tails the personal tales related by author Don Evans in The Long Drag - A Short History of British Target Towing.
Mr. Evans is immanently qualified to author this book. He joined the RAF in 1942 as a Flight Mechanic. While assigned to work on target tugs, he was lured by the princely sum of ninepence a day flight pay to be a target winch operator. He continued as a civilian at Boscombe Down until retirement in 1989. For twelve years, he was supervisor of the Towed Target Development Section.
The Long Drag will be interesting reading for the modeler, historian, and the mechanically curious. For those that have wondered how airplanes drag shapes through the sky, Mr. Evans technical expertise is evident in the detail give to the apparatus used for towing targets. Three individual chapters are devoted to sleeve targets, winches, and accessories to include hooks
and cables. Other chapters deal with the sleeve targets and modern targets. The scope of this book just deals with what is towed.
Historians should like how the chronology is handled. Instead of the book going from earliest to latest on the whole story of target towing, each subtopic is handled in time sequence. For example, the chapter on winches starts with the earliest hand cranks to the simple wind driven models ending with the sophisticated Rushton winches. There is an introductory chapter to aerial targets that chronicles the origins from Zeppelin gunners tossing out small parachutes from their gondolas. The aircraft chapter features aircraft from WWII to the BAE Hawk. A tale of tow target units is listed on the last page of the text. Mr. Evans admits it is not complete but solicits input to fill in gaps.
The anecdote from the opening paragraph is contained in a chapter devoted to tales of towing. A humorous story tells about a dropped target picked up by a local citizen and spirited away in van. The tow target pilot kept the van in sight radioing directions to the following ground crew. After arriving at the van driver's house... The bloke with the van was most surprised when we hammered on his door. "Please can we have our target back...?"
Modelers will find this a ready reference for a colorful addition to a collection. Target tow aircraft had bright yellow and black stripes often applied over a standard camouflage scheme. Lysanders, Defiants, Beaufighters, and Fireflys are just a few of the familiar WW II aircraft depicted in color profile sections. The Meteor, Canberra, and Hawk are jets featured with colorful markings. Many other lesser-known types are featured in text and photos. The Vultee Vengeance is one example of an aircraft that did not excel operationally but worked well in the support role.
My personal opinion about this book is very favorable. This topic is obscure but very well handled. The author is knowledgeable because he lived the history. He presents the story logically and readable. The softbound copy is printed on $8-1 / 4$ "
x 11-1/2" stock. I was pleased the printing was high quality and didn't smudge from handling. The 27 color profiles were crisp and sufficient detail to provide good reference. $115 \mathrm{~b} / \mathrm{w}$ photos are found throughout the book. They are good quality, especially considering the rarity. The front cover has a color photo of Canberra and three more jet color photos on the back. The $\$ 16.95$ cover price is well within the price range for this type of publication. The Long Drag - A Short History of British Target Towing may be obtained from:
Specialty Press
39966 Grand Avenue
North Branch, MN 55056
www.specialtypress.com
1-800-895-4585
1-651-277-1400
Flying is often described as hours of boredom punctuated by moments of sheer terror. Towing targets is a variation on this theme as hours of droning back and forth getting shot at by the good guys. Though often described as menial, it was a valuable service to prepare gunners for battle. If this topic fits a niche in your hobby or historical pursuits, I believe you will be satisfied with this book.

## (Airline Continued from page 4)

787 Dreamliners for $\$ 1.3$ Billion. Boeing unveiled the new Boeing 777-200LR airliner - the world's longest range airliner, with a range of 11,000 miles that can be used from New York City to Singapore, Los Angeles to Dubai, London to Sydney, or may other long haul routes. It will hold 301 passengers. First customer is Pakistan International Airlines. There will be a freighter version of the model also. Boeing has 38 customers for the 671 orders for their 777 model. Thai Airways ordered 6 Boeing 777200ERs for $\$ 1.1$ Billion. Their present fleet consists of mostly Boeing $737 \mathrm{~s}, 747 \mathrm{~s}$, and 777 s .
Icelandic Airlines ordered 10 Boeing 737-800 airliners for $\$ 650$ million.and 5 options.
GOL, the Brazilian low fare airline, has converted an option to buy 20 Boeing 737-800s on top of an ear-
(Changes Continued from page 4)
27. Unprecedented deployability of major ground forces by air. This air deployability would again be dwarfed by another quantum leap in dir deployability 12 years later. 28.First true intercontinental Strategic bombing missions flown from US homeland bases.
29. Collapse of the USSR and the dissolution of the Soviet military industrial complex and system. The Soviet Air Forces divide amongst the successor republics.
30. Russian design bureaus become independent, and then affiliate with specific factories; some go out of existence. The Sukhoi bureau eclipses MiG which goes into sharp decline. Tupolev eclipses its llyushin rival. In a number of combat clashes in the Third World between the vaunted MiG-29 and the equally vaunted Su-27, the MiG is totally shut out by the Sukhoi. 31. The operations over Serbia. The First NATO air campaign and first air combat operations in continental Europe since 1945.
32. Airline hijacking turns into suicide hijacking on 9/11/01. In addition to the outbreak of war and political realignment, this leads to further negative impact on economically troubled airline companies. Increased security hassles. Airline flying definitively loses its last vestiges of luxury and romance and becomes a nasty experience.
33. Afghan and Operation Iraqi Freedom air operations. with political and strategic innovations and also numerous significant innovations. The results seemingly vindicate Mitchell and Douhet.
34.First use of airpower for a decapitating first strike; even though
Saddam himself was not killed, the Iraqi command structure was completely disorganized and suppressed for the duration of the campaign.
35. Simultaneous opening of the air and ground wars without a protracted softening-up period.
36. True joint service operations at all levels of operations and command.
37. Use of airpower as the primary killing force, with ground forces used to identify and flush enemy
targets into the open where they could be destroyed, and then to mop-up and secure enemy territory. 38. Individual aircraft able to attack as many as 16 to 20 unrelated targets in different locations during the course of a single sortie. The number of targets hit replaces sorties as the proper measure of air activity. When performed by CONUS-based bombers, this change appears even more revolutionary.
39. Combat introduction of the E-8A JSTARS (Joint Surveillance And Targeting System), raising the AWACS concept to a previously unimagined level.
40.Significant use of unmanned, remote-controlled aerial vehicles for reconnaissance by the Israelis in 1982. And on a much larger scale by the United States in 2003, and for the first time also using UAVs for conducting attacks in addition to reconnaissance.
41. Basing of US military aircraft in territories of the Former USSR. 42. USAF aircraft, including the F15E and B-52 land at Moscow and participate in the 2003 Moscow Airshow, becoming star attractions. 43. Increased use of orbiting satellites, including widespread use by commercial organizations.
44. GPS by both military and civil use for navigating.
45. Commercial satellite launches.
46. Entry of countries other than USA \& USSR into space.
47. The Space Shuttle.
48. The orbiting Space station.
49. The first tourist traveler into space.
50. Rutan Voyager and the dawn of a new way to enter near space.

[^0](Spraybooth Continued from page 5) at their stuff with a discerning eye and figure out what's wrong (in the dog world we call this being kennel blind). There are others that simply choose to ignore the things that are wrong and blame the judges for screwing up. While that isn't out of the question, it is less likely than there being something wrong with your model.
Simply put, getting third place for a model that isn't worthy only encourages people's bad habits. It doesn't push them to get better.
Now back to the example of the kid that scored the 90 points. If you are on the other team and you don't like it when someone scores 90 points on you, then YOU need to get better! It's really not the kid's fault that he scored 90, it's yours.
If your model isn't good enough to win at a contest, you need to get better. You need to look at what the winners are doing better than you and get better at it! Heck you can probably talk to the guys that won and they may even help you.

I go back to the quote that started this article "Winners have simply formed the habit of doing things losers don't like to do."
Guys that win at contests don't take shortcuts. They have a specific methodology and they follow it each and every time. They spend many hours creating their masterpieces and are not happy until every single piece is just right, even if it means building and rebuilding a piece or a part multiple times until it is perfect.
I will admit that over the last few years l've slipped into the losers habits. l've settled for good enough on many occasions, just to finish a project and get it off my shelf of doom. l've pushed through something just to have it ready in time for some event or contest and not really done the proper job on it and in looking back at the pieces, I can see where l've screwed up and it probably cost me some placements or at the very least better placements.
So my message for this month is to the contest modelers. Quit your complaining about the judging and get better at modeling! Now shut up and build!

## Directions to the Club Meeting Location

Where: South St. Paul Municipal Airport, a.k.a. Fleming Field, located on the southern extremity of South St. Paul, south of I-494, west fo Concord Street and East of Highway 52.

If coming from the western Twin Cities going east on 494:

- Exit at the 7th and 5th Avenue exit (Exit No.65)
- Turn right (South) on 7th Ave and go approximately .6 miles to a 4way Stop sign. This is South Street W. To your left there will be a McDonald's; to your right front there will be a Walgreen's.
- Turn left (East) at the 4-way Stop onto
- South Street W and go approximately .6 miles. Along the way you will encounter three more Stop signs-the third Stop sign (Henry Avenue) will be a "T" intersection. At the "T" intersection on your left will be homes and on your right softball fields.
- Turn right (south) onto Henry Ave. and go approximately . 2
miles toward the Fleming Field airport terminal building.
If coming from east Twin Cities on westbound 494:
- Exit at the 7th and 5th Avenue exit (Exit No.65)
- Turn left (South) on 7th Ave and go approximately 6 miles to a 4way Stop sign. This is South Street W. To your left front there will be a small strip mall; to your right there will be an Amoco station.
- Turn left (East) at the 4-way Stop onto
- South Street W and go approximately .4 miles. Along the way you will encounter two more Stop signs-the third Stop sign (Henry Avenue) will be a "T" intersection. At the " $T$ " intersection on your left will be homes and on your right softball fields.
- Turn right (south) onto Henry Ave. and go approximately .2 miles toward the Fleming Field airport terminal building.
The terminal is on the right with parking available.

[^1]

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[^0]:    (Airline Continued from page 6)
    lier order for 43 of the Boeings.
    Boeing has sold more than 5,500 of their Boeing 737 model.
    Japan Air Lines will buy 30 Boeing 737s with options for 10 more. JAL will remain an "all Boeing" airline. Cost is $\$ 1.2$ Billion.
    Buraq Air of Libya, ordered 3 Boeing 737-800s with options for 3 more.
    Royal Airways of India, ordered 10 Boeing 737-800s for $\$ 630$ million. Air China ordered 20 Airbus A-330200s.

[^1]:    The Aero Historian is published montly by the Twin City Aero Historians, Inc., a joint chapter of the American Aviation Historical Society and International Plastic Modelsers Society/USA, for members and readers as part of their annual dues or fees.

    The group is open to aviation enthusiasts from teenagers on up who are interested in aviation modeling, photography, collecting, art and writing. For more information contact Ken Hornby at 651-552-0888

    The Twin Cities Aero Historians (TCAH) meet the second Saturday of every month at 1:30pm.

    See above for the new meeting locations and directions.

    Mail Newsletter material and address changes to the treasurer.

