



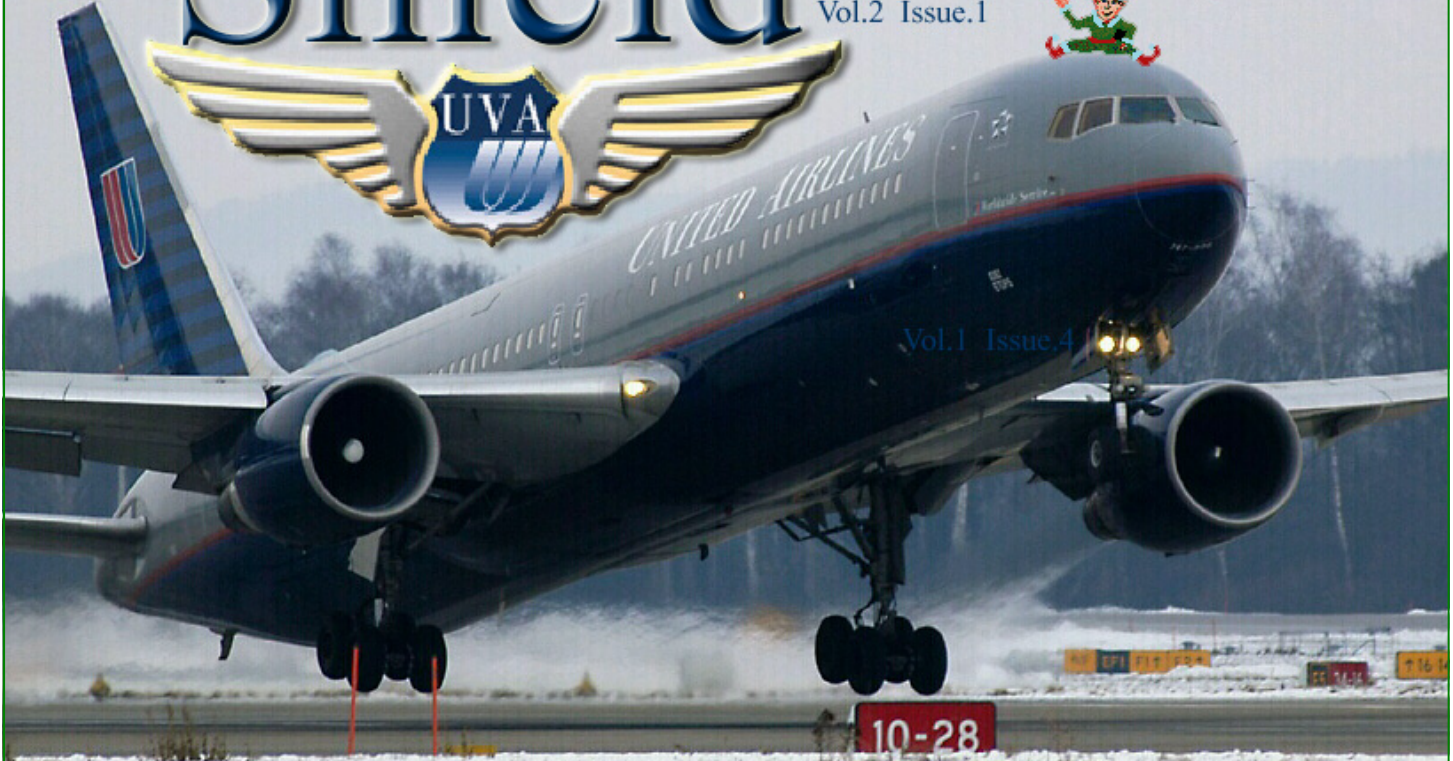
# UNITED VIRTUAL

The

# Shield

*Special Holiday Issue*

Vol.2 Issue.1



Vol.1 Issue.4



State of UVA - Page 7

Cpt Ben's Guide to Flight Planning - Page 16

Flying Safe in Cold Weather - Page 11

Phonetic Alphabet - Page 5



photo #507147 courtesy of Ross Paulson , Airliners.net

# THE SHIELD

**December 1st, 2005**

**Vol. 2, No. 1**

Cover photo #748569 courtesy of "Rotate" Airliners.net

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## Dispatch

- ◆ To Our Readers .....3
- ◆ Letter From the President .....4
- ◆ State of UVA .....7

## Pilot Briefing

- ◆ Phonetic Alphabet .....5

## In-Flight Entertainment

- ◆ Humor Hangar .....6
- ◆ Crossword Puzzle .....10

## Chief Pilot's Corner

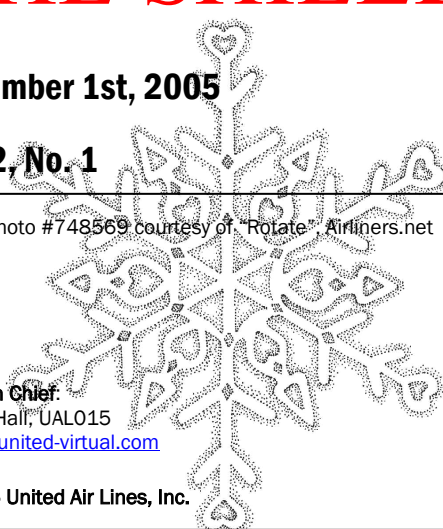
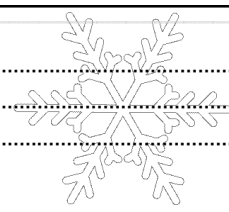
- ◆ Flying Safe in Cold Weather .....11

## Flight Planning

- ◆ Captain Ben's Guide to Flight Planning .....16

## Holiday Special

- ◆ Tracking a Most Unusual Aircraft .....25



...DISPATCH...DISPATCH...DISPATCH...DISPATCH...

## Letter From The Editor



Captain IceMet

Brrrr! I don't know about you, but I'm freezing! It must be 65 degrees right now in Phoenix, Arizona. I guess that means no shorts till February... :)

My friend to the left here "Captain IceMet" wants us all to remember to turn on the PITOT Tube heat before takeoff, and take the necessary precautions when flying during the coldest months of the year. Even Arizona has an IceMet warning over the White Mountain range to the east by New Mexico this Thanksgiving day!

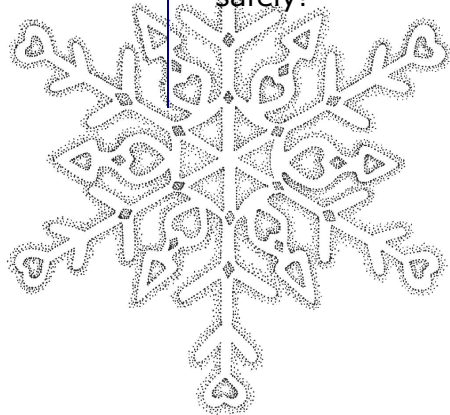
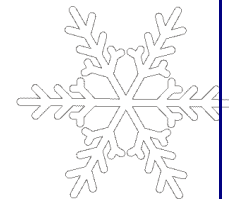
On that note, I wish to give thanks for Friends, Family, and to live in a time where people can fly freely and safely!

This issue is a Special Holiday issue, with an article on flying in cold weather. I hope you all enjoy the festive look!

Be safe, stay warm, and drink hot chocolate while reading this when enroute wherever your flight plan takes you...

Take care,

John E Hall  
Editor in Chief



## “From The President”

— a regular column from the President and COO of United Virtual Airlines, David Klain.



Welcome to the December 2005 of United Virtual Airlines' own in-house magazine - "The Shield"! Believe it or not, this is the fifth time I've written a column for this wonderful

magazine and it's truly amazing to see all the changes that have taken place since we prepared that first magazine last year. Every issue we've put out is available for download off the website and, if you go through them all, I think you'll agree that they have just gotten better and better.

We've got a number of articles of interest in this issue. As I did last year, I've written a "State of UVA" article to give you a feel for what we have done, where we are now, and where we are going. As I wrote that article and went back through my records for 2005 I was truly impressed by all we accomplished as a group. Many lesser VAs would have folded when faced with some of the problems we faced this year. At UVA those problems were simply obstacles for us to overcome and our health and growth today is truly testament to the wonderful pilots and staff we have here.

There is also a useful article on flight planning for MSFS and VATSIM online flying in particular. This article is an outstanding piece for someone thinking about or just starting out in online flying but even has some tips and links I think experienced flight simmers will find useful. The same can be said for an article on communicating with ATC. I've been participating in an ongoing discussion with VATSIM senior leadership and the Presidents of other major VAs and all of us agree one of the things that keeps people away from flying online the most is a fear of screwing up when talking to a live controller. This excellent article gives you details on what to expect, what phrases you will hear, what they mean, and what the various responses ATC

expects from you are. Again it is an invaluable primer for someone just starting out.

Of course with the holiday season upon us everything can't be serious flight simulation work! Buried within these pages is an article on efforts to track one very unusual aircraft. It's an interesting read, the website it leads you to is even more interesting and this article should be mandatory reading for those of you out there with young children...besides making your kids happy this article can serve as another reason you "need" to fly with UVA you can use with your spouse or significant other.

As the holiday season kicks into gear around the world and people take time off from work or school to share with their families and friends, I want to wish each and every one of you a happy and safe season. We are truly blessed to be able to participate in and derive so much enjoyment from this hobby of ours and doubly blessed to be part of a community like UVA. Remember that UVA is nothing without you - the pilots who make this a living, breathing online community.

As always - "It's time to fly!"

All the best,

David R. Klain

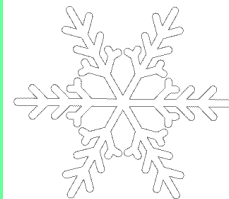
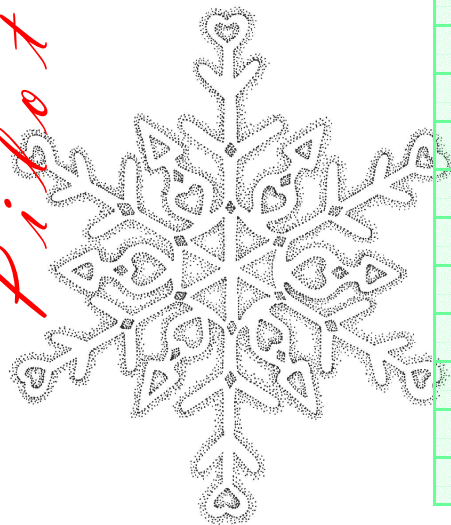
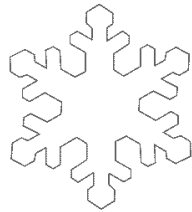
A handwritten signature in blue ink that reads "David R. Klain". The signature is written in a cursive, flowing style.

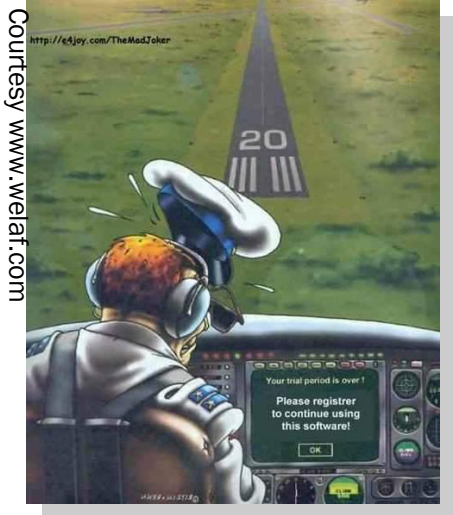
President and COO

# PILOT PHONETIC ALPHABET

A	ALPHA
B	BRAVO
C	CHARLIE
D	DELTA
E	ECHO
F	FOXTROT
G	GOLF
H	HOTEL
I	INDIA
J	JULIET
K	KILO
L	LIMA
M	MIKE
N	NOVEMBER
O	OSCAR
P	PAPA
Q	QUEBEC
R	ROMEO
S	SIERRA
T	TANGO
U	UNIFORM
V	VICTOR
W	WHISKY
X	X-RAY
Y	YANKEE
Z	ZULU

*Pilot Briefing*





Courtesy www.welaf.com

# THE HUMOR HANGAR

## SANTA'S PRE-FLIGHT:

SANTA CLAUS, LIKE ALL PILOTS, GETS REGULAR VISITS FROM THE FEDERAL AVIATION ADMINISTRATION. THE FAA EXAMINER ARRIVED FOR THE PRE-CHRISTMAS FLIGHT CHECK. IN PREPARATION, SANTA HAD THE ELVES WASH THE SLED AND BATHE ALL THE REINDEER. SANTA GOT HIS LOGBOOK OUT AND MADE SURE ALL HIS PAPERWORK WAS IN ORDER. HE KNEW THEY WOULD EXAMINE ALL HIS EQUIPMENT AND PUT HIS FLYING SKILLS TO THE TEST.

THE EXAMINER WALKED SLOWLY AROUND THE SLED. HE CHECKED THE REINDEER HARNESSSES, THE LANDING GEAR, AND RUDOLF'S NOSE. HE PAINSTAKINGLY REVIEWED SANTA'S

WEIGHT AND BALANCE CALCULATIONS FOR SLED'S ENORMOUS PAYLOAD. FINALLY, THEY WERE READY FOR THE CHECKRIDE. SANTA GOT IN AND FASTENED HIS SEATBELT AND SHOULDER HARNESS AND CHECKED THE COMPASS. THEN THE EXAMINER HOPPED IN CARRYING, TO SANTA'S SURPRISE, A SHOTGUN.

"WHAT'S THAT FOR?" ASKED SANTA INCREDULOUSLY.

THE EXAMINER WINKED AND SAID, "I'M NOT SUPPOSED TO TELL YOU THIS AHEAD OF TIME," AS HE LEANED OVER TO WHISPER IN SANTA'S EAR, "BUT YOU'RE GONNA LOSE AN ENGINE ON TAKEOFF."

# UNITED VIRTUAL

## State of UVA

An Update from the President,

David Klain

### 2005 State of UVA

What a year it has been! With so much going on (both good and bad) it seems appropriate to take a look back at 2005 as we make plans for 2006. Instead of taking a look at the year chronologically and basically detailing what happened when, I thought we'd take a look at both our highlights and the events we'd just as soon forget. For those of you who've been with us all year, this may bring back some memories.

So with that said, let's take a look at all we've accomplished:

As we started the year we were enjoying the addition of both United Express and a monthly update to the flight schedule keeping our schedule in line with United's real world schedule. Things at UVA were going quite swimmingly and then we experienced a major site outage in late February. Bottom line is that the site was down hard, I and other key staff were unable to access the root directory (or any directory) on the server, and we were getting no answers from our contacts at United (including our CEO...the head of Information Security at United).

The problem was further compounded by the fact I was doing a fair amount of overseas traveling in February and March limiting my opportunities to contact Igor and our other folks at United.

What actually happened has already been covered in previous editions of the shield. Suffice it to say we made the decision to host the site on a commercial server we had full access to instead of continuing to struggle with the restricted server access United gave us on their main server. We were fortunate that an anonymous donor paid for one year's worth of server space (running through March 2006) allowing United Virtual Airlines to remain totally free to its members.

We spent the last two weeks of March rebuilding the site and restoring all data. Since then the changes and upgrades have been consistent and significant.

Specifically:

1. All website times (including the calendar) were converted to Zulu to eliminate confusion.
2. The entire database was reconfigured to account for what cities/states/countries convert to Daylight Saving Time and which do not.
3. We created a fleet page with links to the best freeware models, textures and panels available on the net.
4. A Passenger Loading System was imple-

*(Continued on page 8)*

## State of UVA

An Update from the President,

David Klain

*(Continued from page 7)*

- mented giving you a specific load for each flight you reserve.
5. We implemented use of FS-ACARS including a real-time flight tracker on the website and plane-to-plane and plane-to-ground communications via FS-ACARS.
  6. A weather center providing real-time METAR and TAF reports was added to the site.
  7. We implemented the pilot category/rank/points system.
  8. We added TED and (most recently) Star Alliance and Partner Airline codeshare flights to our schedule.

As part of our commitment to keep UVA in sync with United's real world configuration, we also reorganized our domicile structure to match reality. The result was the elimination of the Honolulu and Miami Field Offices and realignment of all staff and pilots assigned to those domiciles. The fact this took place so smoothly is testament to the hard work of your UVA staff and VHQR in particular.

Over the last year we've also seen some great special events and changes in our group flights. Back in May we hosted "Memorial Day Madness", August saw "Flying

the Summer Heat" and in September we began the "Saturday Scramble". This weekly event continues to grow in popularity and is building quite a reputation with VATSIM and the VA community. We now have ARTCC chiefs contacting us requesting the Scramble pay them a visit. Just two weeks ago we concluded negotiations with Virtual Air Canada (a member of the Star Alliance) to partner on Saturday Scramble events. The result will be a blend of both UVA and Virtual Air Canada traffic flying in and more fun for all!

In addition to coordinating the various special events, VHQC has also set a new first in the Virtual Airline world with the development of our in-house magazine, The Shield. Truly a professional publication living up to the high standards we set at UVA, The Shield provides educational articles, details on what is going on at the VA, and some fun and humor. Just thumb through this issue and (if you haven't done so) read the back issues and decide for yourself.

The Flight Training and Standards Department has also not been idle. When we implemented the pilot category/rank/points system they took the lead in creating and administering check rides. UVA truly set a new standard in the virtual community with this approach to pilot development and proficiency and other VA's are now following our

*(Continued on page 9)*





# State of UVA

An Update from the President,

David Klain

*(Continued from page 8)*

trail. To enhance pilot skills and education the Chief Pilot has conducted a variety of training group flights (her schedule permitting) in everything from small general aviation aircraft emphasizing fundamentals of flying to mastering the complexity of the Level-D 767 or PMDG 747.

In addition to all I've listed above, there staff have also literally spent hundreds of man hours to improve UVA and maintain the high standards we set in everything we do. Much of that work is invisible to you but essential to what we do. Whether it is coding scripts that allow us to process your promotions in a timely manner or extracting the flight schedule for next month (this is done manually by the way) it is hard work like this that distinguishes us from the rest. The result of that hard work is truly rewarding as we continue to be a vibrant, growing presence in the VATSIM community.

How do we know this? Well new pilot applications are a good mark. Just last month we processed our 2000th new pilot application. While we presently have just over 600 active pilots, over 2000 people have flown for UVA at one time or another since 2003. That's a 30% retention rate – truly spectacular by any measure in a world where VAs come and go on a regular basis.

In addition, we recently flew our 100,000th flight hour. The lucky pilot who flew that hour was rewarded with a complimentary copy of PMDG's 747-400 Queen of the Skies software...truly an outstanding prize for an accomplishment everyone at UVA has contributed to.

In short, 2005 was a great year for UVA. We certainly encountered some hiccups – from the server outage to flight schedule time conversion problems to cyber attacks and disruptive pilots who tried to ruin things for everyone. The strength of the UVA community weathered those problems and made UVA even better. Things look equally bright in 2006 and I am proud to work with the wonderful staff here as we face a new year of challenges and opportunities. Have fun, fly safe and remember...it's time to fly!

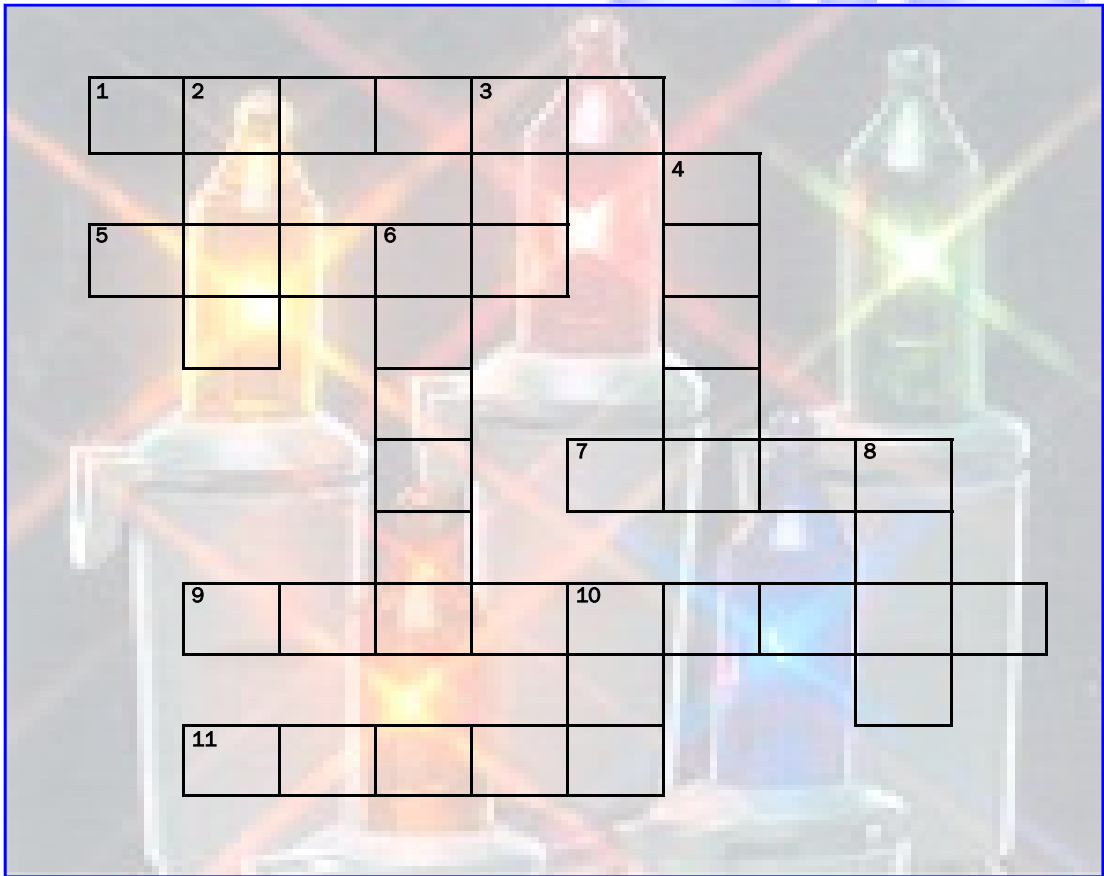
-David Klain



# WORD CROSS R D

# Puzzle

Answer Key on Page 26



## ACROSS

## DOWN

1. Any visual or electronic device which provides point-to-point guidance information or position data.

5. Service providing in-flight data on hazardous weather.

7. Provides current weather data via a repetitive broadcast.

9. The high-altitude "river in the sky".

11. Phrase describing lost communications.

2. Area of airspace within which ready identification, location and control of aircraft are necessary.

3. Precision approach system

4. Time between end of evening civil twilight and the beginning of morning civil twilight.

6. In-flight weather advisory.

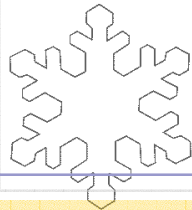
8. A preplanned IFR arrival procedure.

10. A pre-planned IFR departure procedure.

# CHIEF PILOT'S CORNER



## FLYING SAFE IN COLD WEATHER



**IS YOUR AIRCRAFT READY TO FLY SAFE THIS WINTER?**

*Training Center*

Cold weather makes aircraft perform differently. The wings and the engines perform better because the air is more dense. But adding moisture to the cold-weather equation makes life tougher for pilots and aircraft alike.

Removal of Ice, Snow, and Frost - A common winter accident is trying to take off with frost on the wing surface. It is recommended that all frost, snow, and ice be removed before attempting flight. It is best to place the aircraft in a heated hangar. If so, make sure the water does not run into the control surface hinges or crevices and freeze when the aircraft is taken outside. Don't count on the snow blowing off on the take-off roll. There is often frost adhering to the wing surface below the snow. Alcohol or one of the ice removal compounds can be used. Caution should be used

if an aircraft is taken from a heated hangar and allowed to sit outside for an extended length of time when it is snowing. The falling snow may melt on contact with the aircraft surfaces and then refreeze. It may look like freshly fallen snow

but it usually will not blow away when the aircraft takes off.

Blowing Snow - If an aircraft is parked in an area of blowing snow, special attention should be given to openings in the aircraft where snow can enter, freeze solid, and obstruct operation. These openings should be free of snow and ice before flight. Some of these areas are as follows:

- Pitot Tubes
- Heater intakes
- Carburetor intakes
- Anti torque and elevator controls

Main wheel and tail wheel wells, where snow can freeze around elevator and rudder controls.



photo courtesy of Richard Barsby

# CHIEF PILOT'S CORNER

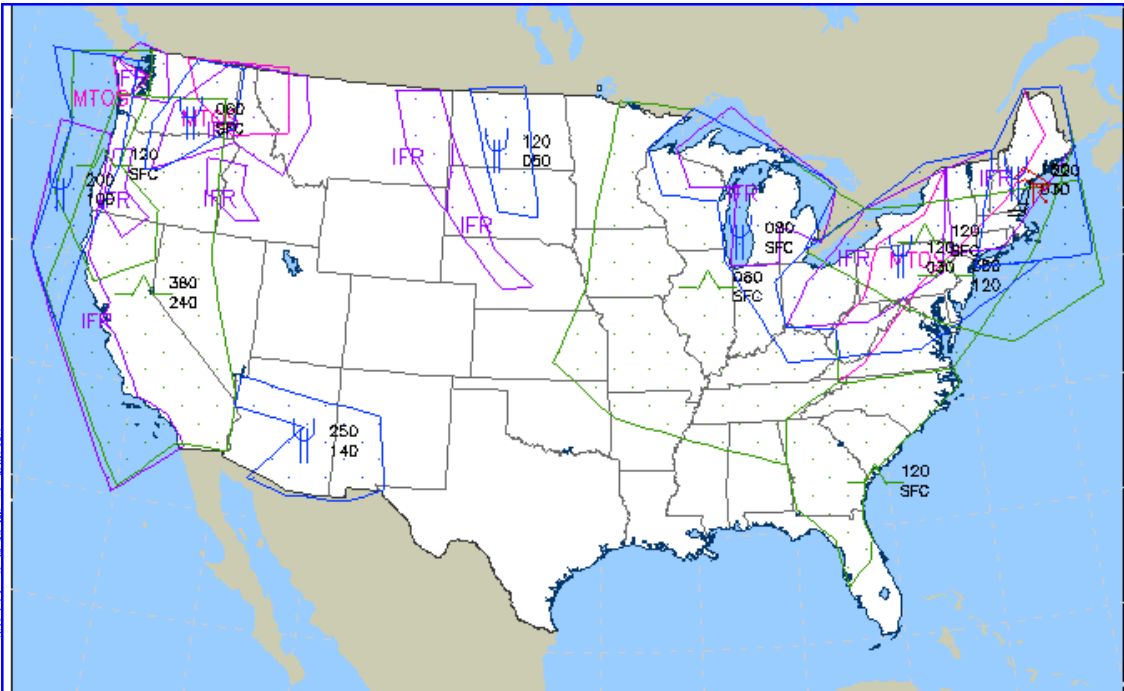


## FLYING SAFE IN COLD WEATHER

### Check for Icing Conditions

Click the link below for quick access to weather advisories, including icing conditions, for the continental US:

[http://adds.aviationweather.noaa.gov/data/airmets/airmets\\_ALL.gif](http://adds.aviationweather.noaa.gov/data/airmets/airmets_ALL.gif)



  
Turbulence  
AIRMET

  
Icing  
AIRMET

IFR  
Instrument  
Flight Rules  
AIRMET

MTOS  
Mountain  
Obscuration  
AIRMET

  
Convective  
Outlook

  
Convective  
SIGMET

*Training Center*

# CHIEF PILOT'S CORNER



## FLYING SAFE IN COLD WEATHER

### Pre-Flight

Be sure that the wing and other control surfaces are free of snow, ice, and frost when reaching the end of the runway. If a long delay is anticipated during a snowfall, coordinate with ATC so that you can be deiced and depart immediately.



photo courtesy of Richard Barsby

*Training Center*

# CHIEF PILOT'S CORNER



## FLYING SAFE IN COLD WEATHER

### Taxiing

A pilot should keep in mind that braking action on ice or snow is generally poor. Short turns and quick stops should be avoided. Do not taxi through small snowdrifts or snow banks along the edge of the runway. Often there is solid ice under the snow. If you are operating on skis, avoid sharp turns, as this puts torque on the landing gear in excess of that for which it was designed. Also for ski operation, make sure safety cables and shock cords on the front of the skis are carefully inspected. If these cables or shock cords should break on takeoff, the nose of the ski can fall down to a near vertical position which seriously affects the aerodynamics efficiency of the aircraft and creates a landing hazard. If it is necessary to taxi downwind with

either wheels or skis and the wind is strong, get help or don't go. Remember, when you are operating on skis, you have no brakes and no traction in a crosswind. On a hard - packed or icy surface, the aircraft will slide sideways in a crosswind and directional control is minimal particularly during taxiing and landing roll when the control surfaces are ineffective.

photo courtesy of John E. Jauchler



*Training Center*

# CHIEF PILOT'S CORNER



## FLYING SAFE IN COLD WEATHER

### Takeoff and Landing

The primary concern is you may need a longer runway length because of snow/ice.

Be wary of icing condition climbing through clouds. If the OAT is close or below to 32 degrees Fahrenheit (Zero Celsius) use them engine deicers!

If your aircraft is equipped with a heated pitot tube, turn it on prior to takeoff.

If something seems wrong during the takeoff or the aircraft is not accelerating normally, reject the takeoff and figure out what is wrong.

If your landing is low visibility, gusty or otherwise, do not think twice about calling a no-go

for landing and go around for another try. This is the safe and prudent action, and you will have a better idea what the crosswinds are doing for your second attempt, and alter your approach accordingly.



photo courtesy Public Facilities Department, Bridgeport, CT.

**FLY SAFE AND STAY  
WARM,  
YOUR UVA STAFF**

*Training Center*

# Flight Planning

## CAPTAIN BEN'S SIMPLE STEPS TO PLANNING A SUCCESSFUL FLIGHT

By

Ben Hoffman, UVA Fleet Manager

*"Well, what exactly is a 'water landing?' Am I mistaken, or does this sound somewhat similar to ...*

*"RASHING INTO THE OCEAN?"*

*- George Carlin*

Now, when we as airline passengers leave the gate and submit ourselves to zooming through the air at many hundreds of miles an hour and at many miles above the Earth; we'd like to know that the guys at the pointy end of the plane has some idea of what lies ahead.

As an airline, emergency situations, 'water landings' and those unscheduled housing development and corn field stops seem to interrupt the flow of our day. If our flight stops, we'd prefer it to be at an airport.

For us virtual aviators, we're comfortable in the knowledge nothing we do can hurt ourselves or others, cost us millions of dollars or run us out business, however, for those of us who want to be as realistic as possible, a solid hour (if not two) of pre-flight planning, a walk around, flight deck inspection and constant in-flight monitoring of our operation is essential!

If this scares you, fear not, we'll take it in small **steps**, and before you know it you'll be sitting here with boxes of Jeppesen airway charts, enroute supplements, airport charts, oceanic orientation charts, thousands of pages of operating manuals and reference materials.

Today's flight is UA908, a Boeing 767-300ER (N666UA) scheduled for service between Chicago O'Hare International and Amsterdam's Schipol airport in the Netherlands. We will be looking at the following things;

- Route planning
- Departure, enroute & arrival weather
- Applicable FIR/ARTCC ("FIR") and airport specific ("AD") NOTAMs
- Charts
- Altitudes

### Route

Now, I could sit down with all my enroute charts and plot this whole thing by hand, but we're not going to that; because all this information is available online.

*(Continued on page 17)*



# Flight Planning

## CAPTAIN BEN'S SIMPLE STEPS TO PLANNING A SUCCESSFUL FLIGHT



(Continued from page 16)

The route we get looks something like this

### RouteFinder

Route generator for PC flight simulation use - **NOT FOR REAL WORLD NAVIGATION**  
(C)2005 ASA srl - Italy

NAT: Eastbound track message identification is 299  
NAT: Westbound track message identification is 298  
Computed route from **CHICAGO OHARE INTL (KORD, K5)** to **SCHIPHOL (EHAM, EH)**:

Cruise altitude between FL300 and FL400

```
KORD (0.0nm) -DCT-> KUBBS (29.4nm) -J547-> CLAUD (77.9nm) -J94->
PMM (87.9nm) -J547-> HASTE (131.1nm) -J94-> DEWIT (159.5nm) -J547->
FNT (196.2nm) -J94-> ABELE (229.3nm) -J94-> ECK (244.5nm) -J546->
DENGA (279.4nm) -J546-> HELMS (313.0nm) -J546-> YSO (409.2nm) -J546->
AMERT (469.8nm) -J546-> MAVOD (519.4nm) -J546-> YOW (566.4nm) -J553->
YMX (635.6nm) -J568-> DICEN (738.0nm) -J553-> ML (832.1nm) -J553->
YYX (935.6nm) -J553-> PN (1102.6nm) -J553-> YNA (1205.2nm) -J553->
YRY (1433.3nm) -NATV-> HECKK (1545.6nm) -NATV-> 53N050W (1677.0nm) -NATV->
```

The resource most often used is the RouteFinder, in its free form, it can be found here  
<http://rfinder.asalink.net/free/>

We just enter the information required and voila faster than you can say 'rotate' a route is generated.

It is important to note that the SIDs and STARs generated by the RouteFinder are not always correct, so be sure to cross check these with your charts - which we will do later.

KORD DCT KUBBS PMM J547 HASTE  
J94 DEWIT J547 FNT J94 ECK J546  
YOW J553 YMX J568 DICEN J553  
YAY NATV NURSI UN551 BESOP UP6  
REMSI UL603 LAMSO STAR EHAM

A little trimming is required here, we will replace "DCT" with the O'Hare One departure and remove the "STAR" fix, notice that because I enabled North Atlantic Tracks (NAT's)

we get "NATV" this is not a waypoint, its NAT Track Victor, which we will talk about in a sec.

Trimming complete, our new route is ...

KORD ORD1.KUBBS PMM J547 HASTE J94 DEWIT  
J547 FNT J94 ECK J546 YOW J553 YMX J568  
DICEN J553 YAY NATV NURSI UN551 BESOP UP6  
REMSI UL603 LAMSO EHAM

(Continued on page 18)

# Flight Planning

## CAPTAIN BEN'S SIMPLE STEPS TO PLANNING A SUCCESSFUL FLIGHT

(Continued from page 17)

Each day, because of strong upper winds (also discussed later) and traffic flows, Gander Oceanic (CZXQ) and Shanwick Oceanic (EGXX) plot a series

```
V YYT NOVEP 48/50 50/40 52/30 53/20 MALOT BURAK  
EAST LVLS 320 330 340 350 360 370 380 390 400  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR N55B N59A-
```

of **flex** tracks across the North Atlantic which can be found here

<http://www.natroutes.glideslope.de/html/nats.php3>

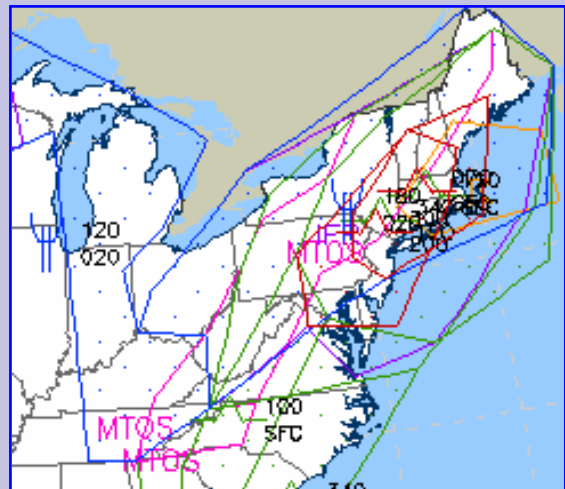
This is today's Track V, here we can see the way-points and that it is an eastbound track (i.e. no westbound levels)

So, our final route becomes

```
KORD ORD1.KUBBS PMM J547 HASTE J94 DEWIT  
J547 FNT J94 ECK J546 YOW J553 YMX J568  
DICEN J553 YAY NATV NURSI UN551 BESOP UP6  
REMSI UL603 LAMSO EHAM
```

### Weather

At 33,000ft or so we're going to encounter anything from space junk that floated down from higher up, to 100kt plus winds and thunderstorms, to convective currents (updrafts and downdrafts), ice, turbulence and all sorts of stuff in-between.



(Continued on page 18)

# Flight Planning Guide

## CAPTAIN BEN'S SIMPLE STEPS TO PLANNING A SUCCESSFUL FLIGHT

(Continued from page 18)

Firstly we'll check out the Airman's Meteorological Advisories (AIRMETs) and Significant Meteorological Advisories (SIGMET) these, as can much of our weather, are found at <http://www.aviationweather.gov>

Looking at the AIRMET/SIGMET map (previous page) we see lots of nasty looking weather over the area we plan to fly – see, we should have looked after the Earth :)

Because this makes my eyes hurt, you can either look at the individual maps or the text based advisories

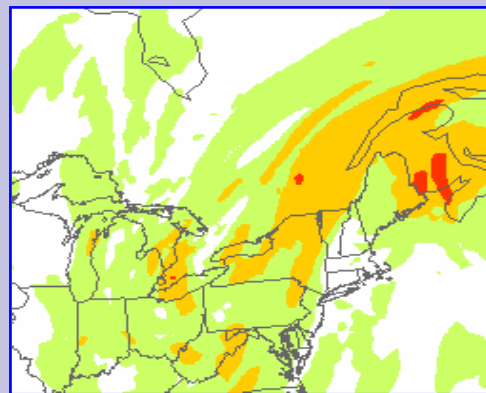
This is an extract from the text results (below), **showing** us it is an update to AIRMET Tango for tur-

```
AIRMET TANGO UPDT 4 FOR TURB AND LLWS VALID UNTIL 252000  
AIRMET TURB...ME NH VT MA CT RI NY PA NJ MD DC DE AND CSTL WTRS  
FROM PQI TO YSJ TO 150SE ACK TO 130SE SIE TO DCA TO PSB TO SYR TO  
PLB TO PQI  
OCNL MOD TURB BLW 120. CONDS MOVG NWD AND CONTG BYD 20Z THRU 02Z.
```

bulence valid until 10/25 at 0000z.

We see it covers states from Maine through to Dela-

ware and the costal waters, but more specifically the area extending from PQI (Presque) VOR (if we look on the map, we'll see this) and can expect occasional moderate turbulence below 12,000ft moving northward and continuing beyond 2000z thru 0200z.



Now to break this down piece by piece ...

Firstly, looking at the composite turbulence

forecast for 1700z, we see the northeastern U.S. a bit of a bumpy ride eastbound across North American continent is forecasted .... well this IS a forecast map!

Convection is the next item we will look at, these are the areas in which warm air rises and the cooler air sinks, which if we're flying through it could mean some altitude changes rather

(Continued on page 20)

# Flight Planning

## CAPTAIN BEN'S SIMPLE STEPS TO PLANNING A SUCCESSFUL FLIGHT

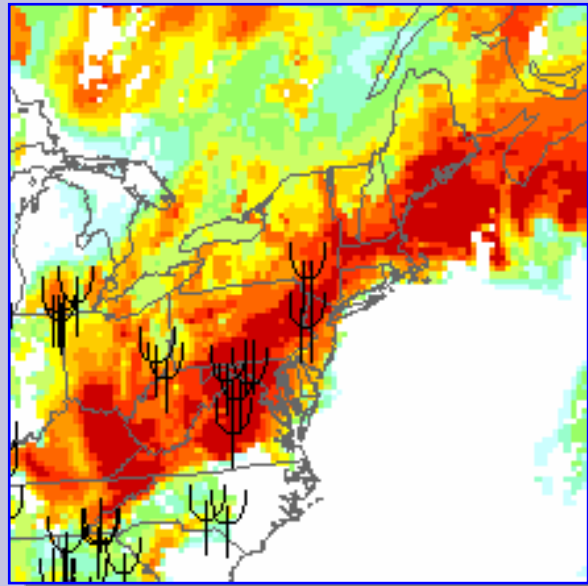
*(Continued from page 19)*

unexpectedly – which isn't good for passenger comfort!



The convection map does show a patch around California, but however, we're not flying out that way, if we were, its time to get a new dispatcher.

With nothing forecasted its time to check the icing forecast.



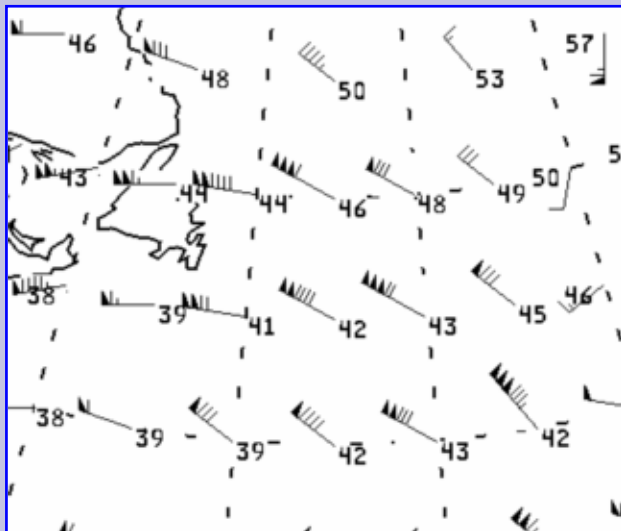
*(Continued on page 21)*

# Flight Planning

## CAPTAIN BEN'S SIMPLE STEPS TO PLANNING A SUCCESSFUL FLIGHT

(Continued from page 20)

A composite icing diagram shows we can expect varying levels of ice between 10,000ft and continuing on beyond FL270. We will want to avoid icing, if at all possible because it requires us to use anti ice systems which increases fuel consumption, if we can't avoid icing, I'd recommend we try to climb through it as fast as possible.



Winds are the biggest factor in choosing a route and flight level, because maximizing tailwind will blow us to our destination as fast as possible, while minimizing headwind lowers fuel consumption and time

enroute.

High level wind charts can be obtained from the FAA Master Weather Index at [ftp://weather.noaa.gov/fax/Amaster\\_index.html](ftp://weather.noaa.gov/fax/Amaster_index.html)

We'll look at the 12hr F390 winds over the Atlantic Passage, which is document number PWAC25

The tail of the wind is shown as the end with the barbs and triangles, which also show the speed.

Triangle = 50kts

Full barb = 10kts

Half barb = 5kts

The temperature is also shown, as is in  $^{\circ}\text{C}$

Eyeballing the diagram, we see tail and crosstail winds of between 140kts and 30kts – good for fuel economy and early arrivals :)

(Continued on page 22)

# Flight Planning

## CAPTAIN BEN'S SIMPLE STEPS TO PLANNING A SUCCESSFUL FLIGHT

(Continued from page 21)



Now, to put what we have just learned into one big picture, we will look at the high level progress chart for the ICAO area we plan to fly through, this can also be found at [www.aviationweather.gov](http://www.aviationweather.gov)

As we've seen, moderate or severe turbulence (the area within the yellow lines) is expected along the eastern U.S. and the jet stream seen above in the wind chart is also noted, by the solid green line and is moving southward. Some turbulence is also expected towards the east of the North Atlantic at FL300.

Now, we've looked at the weather enroute, time to check out what the weather is up to at the airports:

**KORD 251856Z 01015KT 10SM BKN048 10/02  
A3007**

**EHAM 251925Z 23020KT 9999 FEW020 SCT250  
15/12 Q1006 NOSIG**

Chicago O'Hare reports winds from 10° at 15 knots, 10 or more statute miles visibility, broken clouds at 4,800ft, the temperature 10 degrees, dew point 02 and 30.07In Hg on the altimeter

Now, the European METAR is subtly different, reporting winds 230° at 20kts, 10km or more visibility, scattered clouds at 25,000ft, temperature is 15

(Continued on page 23)

# Flight Planning

## CAPTAIN BEN'S SIMPLE STEPS TO PLANNING A SUCCESSFUL FLIGHT



(Continued from page 22)

degrees, dewpoint 12 and the QNH is 10.06Mb.

### AERODROME (DEPARTURE) - KORD (CHICAGO OHARE INTERNATIONAL) :

AGA : Q) KZAU/QLAAS/IV/NBO/A/000/999/4159N08754W005  
FROM 05/09/27 12:00 TO UFN A1612/05  
E) APCH LIGHT SYSTEM 4R UNSERVICEABLE

AGA : Q) KZAU/QLAAS/IV/NBO/A/000/999/4159N08754W005  
FROM 05/10/13 12:07 TO UFN A1701/05  
E) APCH LIGHT SYSTEM 27R UNSERVICEABLE

AGA : Q) KZAU/QFAXX/IV/NBO/A/000/999/4159N08754W005  
FROM 05/04/16 00:11 TO UFN A0686/05  
E) TO REDUCE OPERATIONAL DELAYS THE FEDERAL AVIATION ADMINISTRATION

changes to charts, taxiway closures, NAVAIDs that are unserviceable, airway closures, military exercises, construction etc

The Route Brief feature provided by AIS UK at [www.ais.org.uk](http://www.ais.org.uk) (free registration required) will provide all applicable FIR and AD NOTAMS.

### NOTAMS

NOTAMS (Notices to Airmen) are issued by the FAA to tell us of anything we should know about e.g.

### Altitude

Cruise altitude is dependant on a number of things; the weather, traffic, optimum altitude for fuel and weight as examples.

Reduced Vertical Separation Minima (RVSM) dictates that for our eastbound flight we must use an odd altitude., and provides for 1,000 ft separation of aircraft.

(Continued on page 24)

# Flight Planning

## CAPTAIN BEN'S SIMPLE STEPS TO PLANNING A SUCCESSFUL FLIGHT

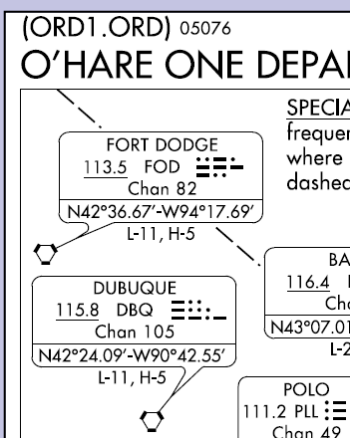


(Continued from page 23)

Because our cruise altitude is highly dependant on weather and optimum altitude for fuel, we looked at those criteria before choosing our cruise altitude.

Our final cruise will be at FL390 today with a step from FL370 because it will allow us to take advantage of the strong jet stream and pass above the turbulence towards the east of the Atlantic.

For a complete list of charts by country, see [www.navdata.at](http://www.navdata.at)



### Charts

Charts for the airports you will be flying into and out of, as well as for the alternate airports you plan to use are an essential part of any operation.

US charts can be found at [www.myairplane.com](http://www.myairplane.com) and for our flight,

charts for the Netherlands can be found at [www.dutchvacc.nl](http://www.dutchvacc.nl)

Fly Safe!  
-Captain Ben



# Holiday Special

## Tracking a Most Unusual Aircraft :)

With the holiday season, there is a dramatic increase in scheduled flights to accommodate literally tens of thousands of travelers around the world who are visiting family and friends or just taking a well-deserved vacation. All those scheduled flights are backed up by non-scheduled flights (including charters) to handle the additional load. On one night in particular (December 24th) there is also one of the most unusual flights in all of aviation. This flight has taken place annually literally since aviation began and sets records for speed, cargo carried, and places visited that no organization, civil or military, has ever come close to matching.

Originating at the northernmost reaches of the world shortly after sunset, the flight heads south on the west side of the International Date Line and visits population centers and remote villages...always working its way to the west. It continues its circumnavigation of our planet hitting all the continents except Antarctica and delivering eagerly-awaited cargo!

While that in itself makes this an unusual and amazing flight, it is in the details that we can truly appreciate the enormity of the pilot's accomplishment. The flight is completed in less than 24 hours. Refueling does take place in the form of carrots, cocoa and cookies, but there is no crew rest on this exceedingly long crew day. The flight is given priority handling by every ATC facility in the world as it safely passes through bad weather and war zones that would scare away the most seasoned pilot in the most sophisticated aircraft...yet this pilot has more experience than any other pilot in the history of aviation.

Some of you may have heard of NORAD. The North American Air Defense Command is a combined organization of United States and Canadian military

personnel. Established during the Cold War to detect Soviet bombers and long range and coordinate their interception, NORAD still maintains a 24/7 watch around the world for threats to North America. Using literally the most sophisticated ground, air, and space borne sensors they literally keep their eyes on the whole world. With a tracking system that good you can be assured that they keep a close eye on the most unusual flight I'm talking about.

Fortunately, because of the flight's international nature and commitment to peace and good will around the world, the tracking of this flight is shared with the entire world. On the evening of December 24th, the NORAD command center begins feeding their tracking data on this most unusual flight to an internet website <http://www.santanorad.com> where anyone can see video and radar track data on the aircraft, its pilot, and its most unusual propulsion system.

I encourage all members of UVA – but especially those with young children – to check the website out throughout the day and evening as the flight is followed on its world-wide flight plan and ask everyone at UVA, regardless of nationality, gender, race or creed to join me in wishing the pilot success in his flight and mission to bring good will on earth and peace to all mankind.

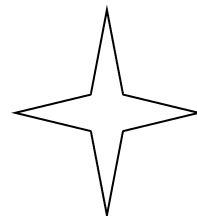




photo courtesy of BKarp, Dailyrecord.com

Season's  
Greetings...

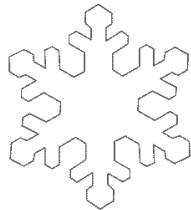


Photo #490020 courtesy of Alex F. Airliners.net



Photo #551779 courtesy of Jean, Airliners.net

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DOWN	ACROSS
2. ADIZ	1. NAVAD
3. ILS	5. HIWAS
4. NIGHT	7. ATIS
6. AIRMET	9. JETSTREAM
8. STAR	11. NORDO
10. SID	

Crossword Puzzle Answer Key