

# BENCHMARKING EUROPEAN ATC?

In July of this year, a new Eurocontrol body convened for the first time. The Performance Review Commission (PRC) is set up under the new Eurocontrol convention and, according to Eurocontrol press releases, has the following function:

*"Using finely drawn indicators to measure performance, it will create a virtuous circle in the continuous improvement of ATM services throughout the continent"...."Areas of particular interest at this stage are ATM operational efficiency, delays, cost effectiveness and customer satisfaction. Performance indicators will be established and published. Targets will be proposed accordingly. Guidelines for economic regulation will be developed and submitted as required. Safety indicators as developed by the Safety Regulation Commission will be taken into account by the PRC."*

In short, they will try and single out weaker parts of the European ATC system. To do this, they will look at factors that the airspace users are most concerned with: operational efficiency, delays,

costs and customer satisfaction.

Before the PRC could start their work though, the Association of European Airlines (AEA) published a report. They try and benchmark European ATC centres. They admit that what they publish are preliminary findings, and that they only want to provoke a discussion. While they claim there data has to be double checked and some very important factors are not taken into account (airspace complexity and technology used for example), the report got considerable attention, not only from the press, but also within Eurocontrol.

Given the pressures that we're exposed to in Maastricht, EGATS thought it would be extremely interesting to obtain a copy of the study. Unfortunately, instead of seeing ourselves measured against the other centres, we found that the Maastricht UAC is not even mentioned. A study of European ATC centres and the third busiest is not mentioned but 50 others are? Strange, don't you think?

It would lead us too far to repro-

duce the whole document here, especially since the AEA comparison of different centres lacks some essential elements. What we will do however is present you some of the raw data - the top 10 for certain categories, and where Maastricht stands -, and attach some of

	ATC Center	No. Flights
1	London	1,560,000
2	Paris	1,056,494
3	Maastricht	997,252
4	Munich	753,148
5	Frankfurt	742,554
6	Marseilles	738,742
7	Karlsruhe	700,115
8	Reims	639,740
9	Zurich	625,204
10	Madrid	588,195

our own conclusions.

### I. Total traffic in 1997

As you can see, Maastricht was the third busiest centre in Europe last

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year. As with all the figures, keep in mind that they might include approach as well as en-route centres and more likely, combinations of both. This, and the fact that airspace size and complexity is ignored, are weak points in trying to compare centres this way.

In combination with the number of controllers working that traffic however, provides a more interesting picture.

	Centre	Controllers	A/c per control-
1	Maastricht	157	6352
2	London	360	4333
3	Karlsruhe	172	4070
4	Munich	188	4006
5	Manchester	109	3615
6	Düsseldorf	157	3112
7	Marseilles	254	2908
8	Frankfurt	258	2878
9	Vienna	204	2463
10	Bremen	134	2442

### II. Controller Productivity (1997)

Without comparing other factors such as technology and airspace structure, it is hard to attach any real conclusions to these numbers. Nevertheless, the lead that Maastricht controllers have over the rest of the core area centres, is too big to ignore.

Our airspace is certainly complex enough, and, while MADAP is indeed a very advanced system, technology can only explain so much. Witness to that is the London centre, probably with one of the weakest systems can come second.

We certainly don't want to point

finger to colleagues around us. It should however give anyone that has any criticism towards Maastricht control staff, something to think long and hard about.

If we compare Maastricht with a pure en-route centre like Reims ACC (would be 11<sup>th</sup> in the list, with 2310 aircraft per controller per year), the question must be asked what causes the difference. A Maastricht controller is 275% more efficient than his French colleague just across the border...

	Centre	Delayed	% of to-	Total min-	Delay
1	Athens	69,465	23.38%	2,143,690	432 s
2	Reims	110,430	17.26%	2,053,998	192 s
3	Madrid	95,267	14.50%	493,878	152 s
4	Macedonia	11,976	7.79%	355,208	138 s
5	Paris	108,850	10.30%	2,129,106	120 s
6	Marseilles	73,980	10.01%	1,460,365	118 s
7	Geneva	45,096	9.46%	878,921	110 s
8	Milan	50,558	9.04%	1,025,316	109 s
9	Barcelona	35,204	8.12%	714,289	98 s
10	Budapest	30,410	7.28%	622,797	89 s
...	.....	.....	.....	.....	.....
19	Maastricht	38,835	3.89%	508,739	30 s

### III. Delays (1997)

At the moment, this seems to be the ultimate factor that airspace users are looking at: never mind the number of incidents, let's not have any delay.

The AEA looked at this another way: they compared the average delay per delayed flight, rather than per total number of flights. Doing that, Ankara is the worst centre, with over 45 minutes delay per delayed flight. But if you know that over the whole of

1997, they've delayed 24 flights, you can see where the comparison lacks value.

We've compared the total delay spread over the total traffic number.

And again we see that, despite the high traffic load, Maastricht maintains an extremely low average delay. Most other centres in the core area of Europe have worse figures to show, the French leading the pack.

What would even be more interesting to look at is not the actual delay, but the trend over a couple of years: is delay going down in the worst areas and stable in others, or is it constantly growing everywhere. Since access to the delay analysis database is restricted, we could not get those numbers.

If we speak for Maastricht, the trend is that delays are on the increase, but since that's probably the case for all centres, it's not something we alone can keep solving by opening new sectors. Fundamental changes (increasing

overall capacity in the WHOLE of Europe - not in individual centres), could bring change. And still, if everyone keeps insisting on flying at the same time, it won't bring much.

### IV. Centre Cost

The AEA report uses the Unit Rate of a country to compare the relative cost of a centre. This gives a distorted picture since the Unit Rate is only used by Eurocontrol to calculate the

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route charges. In most cases, route charges have very little to do with the actual cost of providing ATS over a nation. They are more of a tax, than they are used to cover the actual expenses. Compare it to roadtax or radio and television tax.

Nevertheless, cost is an important factor these days. We're always hearing (strangely enough mostly from internal sources) that our centre is too expensive. While this

#### Just an interesting thought

Why weren't the route charges been liberalised when air traffic was? It should be a simple question of supply and demand: if you want to overfly busy airspace or fly during peak hours, you should be paying more for the flown route! Slots could be sold to the highest bidder, not on "first come, first served" basis.

may be true, one can wonder about the reasons for this.

The control staff's wages are only average in Europe. They work at least 50% more traffic than anyone else in Europe. Take again a French example: Reims ACC. Working week is officially 32 hours, on average they earn 25% more and work 1/3 of the traffic...That means that if we worked like our French colleagues, we would need over 500 controllers, who would all make more money...

So how is it possible that ANYONE says Maastricht is too expensive? We don't have the answer, unless the expense for our centre is created elsewhere, meaning outside the Ops Division. If that is the case, that problem has to be tackled. It is totally unacceptable that a division, which can stand any comparison within Europe, has to share the blame for something which they are not in the least responsible for.

#### V. Conclusion

We hope that the Eurocontrol PRC will do its work more thoroughly than the AEA. If they do, they will undoubtedly find Maastricht amongst the top performers, if not the top, in Europe.

The cost factor of the centre must be put in perspective in a European context, and while there might be room for improvement, the Operations Division, being the core activity of the centre, is the wrong place to concentrate on!

Philip Marien  
EGATS President

#### Another Eurocontrol Press Release

*In comparison with 1996: the Permanent Commission praised the performance of the Central Flow Management Unit which has contributed to this improvement. It has been estimated that overall airspace capacity in the European Civil Aviation Conference (ECAC) area has grown by 6% and it is hoped to increase this figure to 7% in the summer of 1998.*

EGATS thinks this is highly misleading: European capacity has not magically increased because of the CFMU. The only thing that's happened is that the AVAILABLE capacity was better used. The praise for coping with the traffic load should not go to flow controllers, but to the controllers and flight data's who actually worked it.

#### EGATS OUTPUT

# PETAL II

## THE WORLD WATCHES

#### AAL initiative

In May this year, American Airlines announced they would like to use the PETAL II trials to implement Controller Pilot Datalink Communications in their whole fleet. With the FAA backing the initiative, it seems that the PETAL trials in Maastricht have suddenly gained momentum.

Faced with an (costly) upgrade of the aircraft-to-company communications equipment in their whole fleet, AA thinks that they should include ATC datalink capabilities as well. Since PETAL II is at the moment the only working system that allows ATN (the Aeronautical Telecommunications Network: an experimental system that intends to link all parties concerned with air traffic), it seems the logical choice to use it as a basis for that part of the system.

A transatlantic PETAL Integration Team is working hard on fine-tuning the messages and the systems. The requirements in Europe and in the States are ever so slightly different, but it is important to make the system transparent, both for pilots and for controllers. Ideally, it shouldn't make any difference whether they are flying in the US or over here.

What does it mean for the ongoing trials? In effect, it means that they have gained importance: the PETAL II trials are used to validate certain procedures that were worked out by the Eurocontrol EATCHIP datalink group, ODIAC. Since the procedures and message sets this group has worked out are largely a theoretical exercise, validating these is of extreme importance. Since it looks like there might be a global standard derived from them, you

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understand that there's an urgent need for feedback.

In that respect, it is important to concentrate on the messages, rather than on the HMI. Everyone knows the Human Machine Interface, at least on our side, is unacceptable for a full datalink implementation. It is however, the best they could do with the present system. Hopefully, the new ODS will eventually lend itself to a more ergonomic and workable interface, so that we can profit from the predicting benefits of datalink.

#### FANS 1/A and PETAL II

The design of PETAL II calls for a transparent system that can deliver datalink using different communication systems. The only system used so far is the NEAN (Northern European ADS-B Network).

Soon (probably October), another system will be introduced, based on the Boeing/Airbus FANS 1/A infrastructure. As EGATS we feel we need to point out a few facts about that system, before it will be frequently used in day to day operations.

Because the underlying technology of FANS 1/A (ACARS) was never designed to use as an ATC datalink system, it does not agree with PETAL II system philosophies. One of the effects the PETAL trials will hopefully have, is that the mistakes made in the design of FANS can be avoided in the implementation of the ATN.

**Timestamping:** rather than displaying the time a message was sent by the ground system, FANS will display the time it was received by the airborne system. This could result in pilots being presented an old message (possibly even from a previous sector) and NOT KNOWING WHETHER THE INSTRUCTION IS STILL VALID! Therefore the read-

back procedure must be adhered to in the strictest sense, BEFORE a clearance is executed.

**LACK:** FANS 1/A does not allow for Logical Acknowledgement messages. Neither does it support the associated operational dialogue timeouts. It means that timeouts you'll observe on the ground are based on ground system information only: a message may have timed out for you, but not for the airborne system, which will still display it to the pilots. Again read-backs are of the utmost importance.

**ERROR Correlation:** FANS 1/A does not correlate an error message to a specific message. When several dialogues are open (e.g. a heading and a level instruction) and the pilot gets an error, he cannot know whether that error is for the heading or for the level instruction. Pilots are therefore instructed to only have one message open at one time. In case of confusion, they should revert to R/T.

There are other problems, such as FANS being able to reply STANDBY to a change of frequency instruction (?!?) and FANS allowing to open more than one dialogue of the same type (e.g. 2 level requests) while PETAL doesn't. These should be filtered out before they reach the controller, but they could certainly cause confusion on the flightdeck.

The next page contains a table with an overview of the three systems that will be used to evaluate the PETAL II message sets. It should be clear from the above, that it is unlikely that the mixed use of NEAN and FANS will be completely transparent. The designers of the system expect different response times for both systems, and that's only for starters.

Earlier FANS 1/A trials in the pacific have shown major deficiencies in the FANS system. These have caused IFATCA and IFALPA (the

airline pilots association) reject FANS 1/A for CPDLC.

While the system has advantages over the HF R/T used in the area, some serious drawbacks have surfaced. The most serious one was the fact that messages were sometimes delivered to the wrong aircraft!

The PETAL team decided however to include it in the trials, in order to have an opportunity to try datalink on more aircraft. Since the system is installed in a large number of (mostly long range) aircraft already, it can be introduced at little or no cost for airlines.

What they expect from it is feedback. Unless the FANS 1/A really disrupts the trials (in which case it will no longer be used), it will hopefully provide valuable information for the further development of the ATN specification for datalink.

I can assure you that the information coming from the PETAL trails (both I & II) has already had some impact on the design. We can't let the engineers get away with doing their own thing, like they're used to. It's important to fill out the questionnaires (I know they're a pain...) or alternatively, use the PETAL logbooks on the sectors. They are read and the people reading them aren't afraid of negative comments, unlike some other people. Be as frank as you want, but try and keep it constructive.

Lastly, I can recommend the **PETAL Lite** document (available from Henk Huizer), which provides you with a little more background on the different system and their advantages/drawbacks. Get it, if only for the glossary!

BM

CRITERIA	NEAN	FANS-1/A	ATN
<b>PARTICIPATING AIRLINES AND AIRCRAFT TYPES</b>	Lufthansa: B747-200 SAS: DC9 FK28	Qantas: B747-400 Lufthansa: B747-400 Air New Zealand: B747-400 Swiss Air: MD11 Continental: B777 United: B777 Delta: B777	American Airlines: B767 BAC 1-11 Test Aircraft Citation (EOLIA)
<b>NUMBER OF AIRCRAFT INVOLVED</b>	10	25 - 50 (Upper figure only if trials are extended)	4 (If trials are extended)
<b>FLIGHT TRIALS COMMENCE</b>	Lufthansa: Apr 98 SAS: Jul 98	Qantas: Autmn 98 Lufthansa: Autmn 98 Air New Zealand: Autmn 98 Swiss Air: TBA Continental: Winter 98/99 United: Winter 98/99 Delta: Winter 98/99	American Airlines: Early 99
<b>SYSTEM INTEGRITY<sup>1</sup></b>	Errors unlikely, but possible	High	High
<b>SYSTEM RELIABILITY<sup>2</sup></b>	Medium	Lowest	Highest
<b>Datalink Initiation</b>	Semi-automatic after airborne equipment initialisation	Manual - 30-35 minutes prior to entry into Maastricht UAC airspace (or during pushback/taxi)	Manual - 30-35 minutes prior to entry into Maastricht UAC airspace (or during pushback/taxi)
<b>UPLINKED MESSAGES APPEAR IN AIRCRAFT'S FMS (FOR PILOT TO EXECUTE)</b>	No	Yes	TBA
<b>UPLINK MESSAGE TIME-OUTS</b>	Yes. Same periods as ground system	No time-outs. Messages remain open until accepted or rejected.	TBA
<b>EXPECTED DIALOGUE COMPLETION TIMES</b>	Fast	Slowest	Medium
<b>DOWNLINKED INFORMATION</b>	Downlinked Pilot Preferences: Top of Descent Requested Flight Level Maximum Flight Level  Automatic broadcast every 5 minutes and when updated by aircrew	Downlinked Controller Access Parameters (CAP): Heading Air Speed Vertical rate  Automatic update every 64 secs.	Downlinked Controller Access Parameters (CAP): Heading Air Speed Vertical rate  Update periodicity TBA
<b>USE OF DATALINK - EFFECT ON COCKPIT WORKLOAD</b>	Medium	High	TBA
<b>AIRCREW FAMILIARITY WITH DATALINK</b>	Mixed. Some crews will be more familiar than others	High	Low

<sup>1</sup> The quality and level of confidence attributed to a system's output

<sup>2</sup> The probability that a system is ready for use within the period it can be expected to be available (excluding scheduled down times).

# Being **DRUNK** on an Aircraft

**Not a guide on how to get drunk on an aircraft. We presume you know how that works. Rather a look at what could be the consequences, if you should decide to get plastered while flying (or before). Don't drink and fly!**

worse when a guy with a powdered wig says something like that).

The basis for this conviction is Article 57 of the Air Navigation (No 2) Order 1995, which forbids to enter an aircraft while drunk or to be drunk on an aircraft. Furthermore, it is an offence, under article 55 of the ANO, for any person 'recklessly or negligently' to act in a manner likely to endanger an aircraft or any person therein. These offences are punishable by a maximum of two years imprisonment or fines not exceeding £2000 or both. They don't tell you that when they offer you a double gin and tonic, do they?

July 1996. Three guys in their early twenties board a very early morning flight at Manchester, destination Crete. While they were clearly intoxicated before they come on board, neither ground or cabin crew deny them boarding.

Already during boarding, they're noisy and boisterous, they shout and swear at everything and everyone, making a general nuisance of themselves. During the safety announcements, they make offensive remarks about one of the stewardesses.

During the taxiing, the flights' captain decides to return to the stand and has the three taken off the aircraft by the airport police and charged.

In May 1997, the Manchester Crown Court were each sentenced to six months' imprisonment and ordered to pay £450 compensation plus £50 costs. The three appealed, but the Court confirmed the sentence, describing the incident as 'really appalling' and found that the three men had behaved 'quite disgracefully' (it must sound

(handcuffs).

Arrested by the police upon arrival, he was sentenced to two years imprisonment, which is the maximum penalty for the offence. During the appeal, the court recognised his 'guilty' plea and despite the seriousness of his offence, reduced the sentence to 18 months.

And in a third case, the judge found a Mr. Hunter guilty of disturbing a flight from Tenerife to Manchester. Prior to the flight, he had a row with his brother and drank a considerable amount. Once on board, he started swearing and shouting. Because he was so disruptive, the First Officer had to come and threaten to land in Lisbon and throw him off the plane. A medically qualified passenger, who helped to calm Mr. Hunter down, described him as "a potentially violent, disturbed character".

Initially given 18 months, the courts reduced the sentence in this case to 6 months, of which only 3 were to be served. The other 3 were suspended, subject to the defendant not committing any other crime.

Although the examples are from the UK, other countries probably have similar legislation. Every passenger is in his or her own way partly responsible for their own and their co-passengers' safety and it's worth remembering when ordering that double vodka...



Another example, again from her Majesty's Courts in Manchester. On November 14<sup>th</sup>, James Mullally, a US citizen, flies from the USA to Manchester. During the flight, he drank an excessive amount of alcohol (whiskey) and took some sort of medicine or drug. Soon he was staggering around the cabin, managed to damage a toilet door and because of his agitated state, he was restrained using a restraining kit

# EG@TS on the INTERNET

For a while now, EGATS has had a page on the World Wide Web (WWW). To my shame, I have to admit that updating it has been somewhat of a failure, mainly due to lack of time.

However, with the establishment of the EGATS.ORG domain, hopefully this will change. Our new web page can be found at: **WWW.EGATS.ORG**

This also implies new e-mail addresses:

Executive Board: board@egats.org  
Professional Committee: professional@egats.org  
Forum Co-ordinator: forum@egats.org  
Webmaster: webmaster@egats.org

If you are interested in helping EGATS with something, please do not hesitate to call/(e-)mail/fax us. In particular help/articles for the OUTPUT and help with the website (how's your HTML?) would be appreciated.

As a reminder, our normal mail address is:

EGATS  
PO Box 47  
6190 AA Beek  
The Netherlands

Tel: +31.43.3661.120 Fax: +31.43.3661.541

## CONFUSE A GPS

**D**on't know if you've heard this one, but there's an early millennium problem on the way. On August 21st 1999, older GPS systems will think it's January 6<sup>th</sup> 1980! This could potentially disrupt older GPS receivers.

Why does this happen? The GPS system relies on a 13-bit counter to determine the date: the first 10 bits is a week counter and the last 3 bits determine what day of the week. This means that a maximum of 1024 weeks can be counted by the ( $2^{10} = 1024$ ). August 21<sup>st</sup> will be the 1025<sup>th</sup> week since they started counting, and therefore the counter will reset to 0, i.e. January 6<sup>th</sup> 1980.

The newest systems anticipate this and will just keep counting, but older systems won't. On GPS websites (Garmin, GPSWorld, etc.) the problem is not addressed.

It could give us a hint of what could happen on Jan 1<sup>st</sup> 2000. (See last issue). It might also be wise to add the date to your "Better not fly on..." calendar, also in the last OUTPUT.

BM

EGATS OUTPUT

## SWEDISH CONTROLLERS: SICK OF IT ALL!

Swedish controllers have commenced actions to put pressure on their administration in salary increase talks. Many air-traffic controllers called in sick, effectively staging an unofficial strike. At one stage, 8 out of 30 controllers who were supposed to work at Arlanda control centre called sick.

Traffic at the airport in Gothenburg, Sweden's second largest city, was suffering similar delays as was Stockholm's small city airport Bromma. As some 15% of Swedish mail is delivered via air, the post office has problems delivering some 50,000 pieces of mail due to the delays.

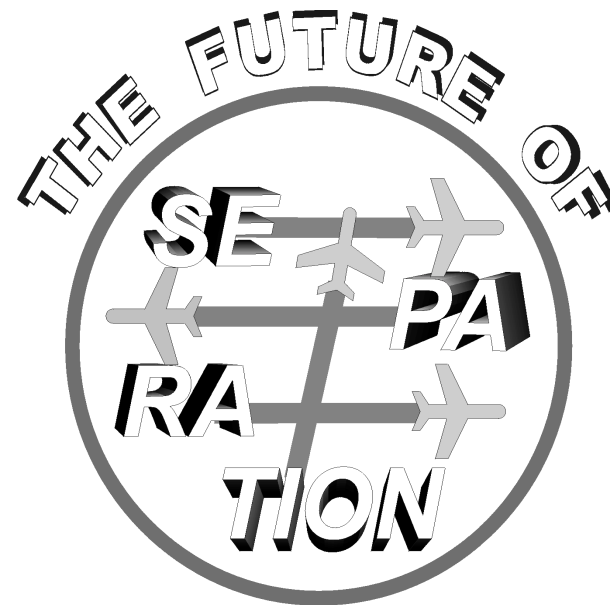
The Luftfartsverket declined to comment on whether Swedish traffic controllers, who are forbidden by law to strike, were unofficially on strike.

A spokesman said: "It's about pay. In Norway air traffic controllers are paid better than in Sweden, so negotiations are going on between traffic controllers and Luftfartsverket". He said Swedish traffic controllers had threatened to take up jobs in Norway if Luftfartsverket did not increase wages beyond the proposed nine percent hike.

The administration declined to comment on the number of traffic controllers who had called in sick since the informal action began on September 6<sup>th</sup>.

Staff who were taking sick leave were staying home less than one week, after which they were required to show a written excuse from a doctor.

EGATS OUTPUT



## EGATS FORUM



23<sup>rd</sup> February 1999

MECC MAASTRICHT/NL



**EGATS, the Eurocontrol Guild of Air Traffic Services, is organizing a one day Forum during the ATC 99 Exhibition and Conference in February 1999**

As always, participation in the forum will be free.

This Forum is supported by **Miller Freeman Exhibition Ltd., Jane's Airport Review, DENRO and Eurocontrol**

**T**he ever increasing pressure on the ATC system for more capacity, has triggered a number of large scale initiatives. In an effort to make more efficient use of the available airspace, parts of these initiatives suggest quite significant changes in the way aircraft are separated. Not limited to a reducing for example vertical

separation minima, they also foresee a transfer of responsibility for separation from Air Traffic Control to the cockpit crew under certain conditions. While technology might make this possible in the foreseeable future, at the moment it raises more questions than answers.

Can technology provide a traffic display in the cockpit on which separation can be based? Do pilots want this responsibility? How will it affect their workload? Do controllers want to delegate separation to pilots? Can ATC separation exist in conjunction with self-separation? How will it affect

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# EGATS FORUM

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capacity? Will it be worth the considerable investments that companies have to make? Will aircraft eventually separate themselves? These and similar questions will be addressed by speakers at the 1999 EGATS Forum. The informal discussion afterwards will hopefully provide some answers....

The way we'll conduct the Forum will be somewhat different in 1999 than in previous years. We'll still have speeches, but instead of having a sit-down discussion in the auditorium after the presentations, we're organising a discussion-reception afterwards. We hope that this will encourage people to approach the speakers and/or others and engage in talking to them about various aspects of this year's Forum subject. More details in the next OUTPUT.

We hope to see you in February.

The EGATS Forum Organisers  
& the EGATS Executive Board

# SATELLITE AIRCRAFT? AIRCRAFT SATELLITE?

**LOS ANGELES.** An oddly shaped aircraft took to the skies over the Mojave Desert Tuesday in a demonstration of a new communications technology proposed for major cities. The High Altitude Long Operation-Proteus aircraft is designed to circle for hours some 50,000 feet high, functioning much like a communications relay satellite does in space.

Its designers envision such planes over metropolitan areas world-

# TRACK THE COMPETITION

Tracking commercial and private flights on the internet. It's every business traveler's dream: knowing exactly when your flight will be in. Now several little-known Internet sites can tell you just that, using data provided by the Federal Aviation Administration for a different purpose altogether.

The private internet sites, such as [www.thetrip.com](http://www.thetrip.com), use Federal Aviation Administration air-traffic control data. So far, the information is used mainly by the airlines, which want to see where their planes are; by companies tracking their own private jets; and by car-service and limousine companies waiting for passengers. Information about commercial flights is free, but the sites charge \$100 and up a month for data on private aircraft.

"What we have done is put all the communication capacities of what might be a satellite 22,000 miles high ... and put it 10 miles over a city," said Peter Diamandis, president of St. Louis-based Angel Technologies Corp.

Typically, a region could receive 24-hour service from a fleet of three planes, each flown by two-man crews on eight-hour shifts. The aircraft would fly fixed patterns providing coverage to an area 75 miles in diameter.

EGATS OUTPUT

While the more accurate arrival schedules are a boon to business fliers, another possible use for the service has many executives alarmed: corporate espionage. Not only can the sites tell you whether a flight's on time - they also show where the aircraft is coming from and where it is going. By entering a private jet's tail number, corporations can easily monitor where and when their competitors are traveling - making some very private trips very publicly available, says Jack Olcott at the National Business Aviation Association, a Washington trade group.

The group is asking the Internet sites and other providers to voluntarily screen out the tail numbers of private aircraft when requested to do so. But in the meantime, Mr. Olcott says, "It's making some of our members nervous."

The signal's proximity would make it stronger than traditional satellites, Diamandis said, and the signal would not be blocked by buildings or terrain -- a problem with tower-based systems.

The aircraft, powered by two jet engines, was designed by Burt Rutan and bears a resemblance to his famed Voyager, the first airplane to make a nonstop flight around the world without refueling.

About 56 feet long, it has a main wing about 92 feet long and a forward wing called a canard - a trademark of Rutan designs. In operation it would carry a bulbous communications pod slung beneath its belly.

EGATS OUTPUT

# IFATCA EURONEWS



**At the annual meeting of IFATCA in Toulouse this year, Marc Baumgartner was Elected Vice President Europe. Marc is a controller in Geneva ACC and despite his age (barely 30), has quite some experience, representing his organisation in various international organisations. What follows is his update on some European issues.**

## Greece

The Greek MA requested IFATCA to make a liaison visit to Greece in order to assist the Greek controllers with the ongoing problems of relocating to their new control centre. IFALPA, at its last annual conference (Spring '98), decided to award a 'Black Star' to the Greek airspace, subject to the findings of their Inspection Team. IFATCA coordinated closely during the whole visit with IFALPA. A recent IFALPA press release awarded a 'Red Star' (critically deficient) to Greek Airspace.

Chris Stock (former EVP Tech) and I were able to visit the Centres and Towers (both new and old) at Athens and to view the actual situation in Greece. What we saw, we deem to be safe and believe that the ATCO's are doing a good job. IFATCA was able to voice concern to the Governor of Hellenic CAA regarding the staff shortage (no new controllers have been hired since '92) and training (a special focus has to be put on training, taking into account that Greek controllers will change from a system of procedural control to a radar environment using electronic strips).

## Bulgaria

As far as the IFATCA Executive Board is aware, all the controllers have been re-employed, except for three.

## Ongoing Work

In general, it can be said of this year that IFATCA's recognition in Europe has grown. This is due to the tireless efforts of all those people who represent IFATCA, not only at the present time, but also those who have done so in the past. Whilst we have access to Working Groups within the ECAC/Eurocontrol area at specialist level, we are now even gaining admission to forums at a higher, political level.

## ACG ATM/CNS Consultancy Group

IFATCA has been invited on three occasions to the Air Traffic Management / Communication, Navigation and Surveillance Consultancy Group which guides all the processes within the Eurocontrol area and reports to the Provisional Council. Milestones of ACG meetings this year have been so far:

- ✓ The introduction of B-RNAV, with some 4 months delay and a poor performance by Eurocontrol regarding the evaluation of the retrofitting of aircraft flying in European airspace.
- ✓ Delaying the introduction of 8.33kHz by 9 months (should now become operational the 7.10.99).
- ✓ Following-up progress regarding the introduction of the RVSM over continental air-

space.

## ATM 2000 +

To cope with the foreseen traffic increase over the coming years (a doubling of 1997 traffic figures by the year 2015) the European Civil Aviation Conference (ECAC) Ministers of Transport decided to task Eurocontrol to devise a new Strategy. The Strategy will be presented at the end of November 1998 to Eurocontrol's Provisional Council and, if approved, will be discussed at the next Ministers of Transport Meeting (scheduled for the first half of 1999). IFATCA was able to give input, particularly in the 'human aspects' domain. Copies of the ATM 2000+ Strategy are available through your national administration or the Eurocontrol web-site (<http://www.eurocontrol.be/ded/atmstrat/>). Volume I is more of a political overview of the strategy whereas Volume II gives more detailed guidelines.

## EU 5<sup>th</sup> Framework Programme

The European Union invited IFATCA to a Working Group in the ATM domain. In this Working Group, programmes and tasks were united to produce Research and Development. The European Union has a large budget for research in the 5<sup>th</sup> Framework Programme, which covers various domains, one of which is ATM.

## Eurocontrol Seminars

At the recent RVSM seminar in Luxembourg, Dominic Kelly (Ireland) was able to give a widely applauded presentation on RVSM, on the behalf of IFATCA.

## ARN V3

The introduction of the new Area Route Network Version 3 will start the 8<sup>th</sup> of October 1998 and will be implemented in phases throughout Europe. Check if you are concerned by this new network and if you need additional information

(Continued on page 11)



(Continued from page 10)

from IFATCA regarding the introduction.

#### Internal organisation of IFATCA's EUR region

At a recent meeting held in Bruxelles, Catharina De Decker, Philippe Domogala, Dave Grace, Bert Ruitenbergh, Marc Baumgartner (and Micheal Schöps, Anthony Smoker, Hannes Ziegler who were invited but were unable to attend) tried to determine a solution to the never-ending increase in work for IFATCA representatives within the EUR Region. The so-called 'Think Tank' meeting came up with some proposals that will be explained to you in more detail at the Regional Meeting in Oslo. (Look for an Update in the next OUTPUT).

#### Introduction of 8.33 / RVSM

The forthcoming introduction of the 8.33 kHz and RVSM are of great importance to all ATCO's working continental European Airspace. We have fears that the introduction will not be very smooth at all, from what we know at this stage. The next issue of the Euro-newsletter will be devoted to these two topics. (Also in next issue of OUTPUT).

#### Pool

I would like to draw attention to the fact that the profession of Air Traffic Control has gained a lot of recognition in recent years, especially regarding work carried out by IFATCA. This means we are invited to provide input at a growing number of working groups and meetings. To be able to cope with this (and also as a conclusion of the first Think Tank meeting) I would like to urge all MA's to consider allocating one person to join a pool of 'corresponding or travelling representatives' for IFATCA. If you think you have a person that is interested and willing to do some over-time for IFATCA, let your Exec. Board know! State the particular area of interest (Procedures / Flow / Research / Politics etc.).

#### EUR fund

As agreed at the 1997 European Regional Meeting at Noordwijk, the European Fund has been established. This fund, financed on a purely voluntary basis, should help the EUR Region to better cope with all the working groups and expenses that are not covered by the IFATCA annual budget. Member Associations wishing to contribute to this fund are kindly invited to do so ... or to continue to do so. So far, the following have contributed for 1998: Denmark, United Kingdom, Malta, Czech Republic, EGATS, the Netherlands, Germany. Thank you very much! The current balance is 2650 CHF.

Marc Baumgartner, EVP-EUR

## Competition

Remember last issue's competition? YES? THEN WHY DIDN'T YOU ENTER?!!

Really.... 500 something members and **TWO** entries? Admittedly, that's two more than the last competition we ran but it is still pathetic. How am I supposed to have my beautiful assistant draw a lucky winner from the pile of **TWO** entries?!!

Anyway, the two people that did bother to enter, are **Stijn Mertens** (Hannover sectors, Maastricht) and **Marc Ravier** (Brussels sectors, Maastricht).

Due to space limitations we can't publish the winning additions to the datalink message sets - maybe next issue.

As for their prize, they've won a beautiful engraved EGATS pen. Ha! See, you should've entered.

#### EGATS OUTPUT

## MOST POWERFUL RADAR EVER

Since April 1996, a satellite the size of a Volkswagen Beetle has been sending hundreds of thousands of close up pictures of our closest star, the sun. The Solar and Heliospheric Observatory (SOHO) has enabled astronomers to get a better insight in the way the sun works and make more accurate predictions of solar storms that cause problems in radio transmissions.

In June 1998, after an unusually complex maintenance procedure, all contact with SOHO was lost and no matter what attempts were made, it could not be re-established. It was feared that it was in a spin and that its solar panels weren't facing the sun, so that the batteries could not recharge.

Not being able to tell exactly where the craft was, no commands to correct the situation could be sent. It was therefore that NASA decided to improvise the most powerful radar ever used: an extremely powerful beam was directed towards the sun, by using the Arecibo antenna dish, embedded in a Puerto Rican mountain.

After about 10.5 seconds, a 70 m radiotelescope in Goldstone, California, picked up a faint return of the spacecraft, estimated at one billionth of a watt.

Having located it, technicians ordered the craft to store whatever little energy was coming from the solar panels. Alternating between storing energy and thawing SOHO's hydrazine fuel cells, they will soon start correcting the spin and orbit.

After that, only following a two month period of restarting and evaluating systems, SOHO will be back online, sending back pictures of the sun.

BM

#### EGATS OUTPUT

## A FEW MOVING WORDS FROM THE TREASURER



I would like to take this opportunity to advise you of some financial changes that will be taking place next year. Actually, they are not really changes, it's just that the Executive Board has decided that it is time to adhere to the bye-laws, whereas until now we have maintained a somewhat relaxed attitude in respect of payment of EGATS annual fees.

Since I took over as treasurer I have realised that an unnecessary amount of time is consumed E-mailing and physically chasing people for their fees and then advising them of the consequences if those fees are not paid; and that always feels like I am issuing a threat - not part of my job! So here's the deal.

The bye-laws quite clearly state that **annual fees shall be paid in January of each year**, and that's just what I expect to happen next year. If payment has not been received during that month a **reminder** will be sent to the individual, or station, concerned. The recipient then has a **further thirty days** in which to effect payment, following which period the suspension process will be im-

plemented. This means that effectively your membership will just expire, unless the AGM decides otherwise, and that you lose access to all EGATS facilities.

If the laid down procedure is followed I then have a much more accurate financial situation to present to the Audit Committee and to the AGM. If you should put yourself in such a position as to find yourself suspended, you may re-apply for membership commencing the following July. This will, of course, require payment of the joining fee once again and in the interim period you will still have lost your EGATS facilities.

Is it worth it? This all sounds very harsh but it only concerns a very limited number of people and it does follow the letter of the law - as approved by you.

There are a few people who, with all the best intentions I'm sure, actually pay before the start of the new financial year - which, incidentally, coincides with the calendar year. Thus their payments end up in the wrong financial year and I have to juggle things around to make the books balance. This just makes the job of providing trans-

parency for the Audit Committee that little bit more difficult. Could I persuade you to **make your payments in January**? You're so kind.


Finally, **the mode of payment**. The vast majority of you, thankfully, make your payment by bank transfer. This is by far the most desirable method as both parties have proof in print that the payment has been made. Please only resort to other methods of payment if the medium of banking has not yet reached your world! Cash is a highly undesirable commodity.

Additionally, please be careful about **the amount of money** that you transfer. I have to chase after you if you transfer too little, and I have to return money if you transfer too much. That time could be spent doing much more constructive things (behave!!).

Right, I think that is all I need to say. With a little cooperation from you I can sit back and watch the finances keep themselves in order. If you contact the bank now you can get everything arranged in good time.

Paul Hooper.

# Do The Ops Room Shuffle



EGATS OUTPUT

You might have heard about the initiative to re-shuffle the Hannover/Lippe sectors in the old Ops-room. This plan will be executed very soon.

What are the reasons behind and how will the plan be realised?

The arguments for a re-organisation of the Hannover/Lippe sectors are manifold and of different nature, depending on the person you're talking to about this initiative.

Let me list some of the arguments brought up.

## Operations:

- ✓ It will bring more flexibility for GAT
- ✓ Co-ordination between OAT and GAT sectors will be reduced to a minimum and will be more traffic orientated instead of procedure (Lippe Status) orientated
- ✓ OAT will have easier access to the East-sectors
- ✓ New sectors need to be implemented
- ✓ It takes at least another two years until we move to the new Ops-room, that's why it is time to change things now

## Systems:

Systems Division agrees to this plan for different reasons.

- ✓ The technical status of our hardware dictates changes.
- ✓ The ageing system cries for replacement
- ✓ There is an indefinite delay for the move to the new Ops. Room.
- ✓ No spare consoles are available anymore to implement new sectors and cannibalism is the only remaining way to replace worn out parts.

This list of arguments is any other than complete. It just highlights the necessity for the changes seen by the initiators of this plan.

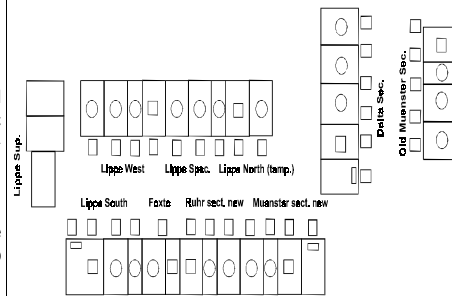
Now, when will our technicians start working on the reshuffling and how long will it take to completion?

Work will commence in a few days already with the transfer of the Test and Development sector to the new Ops-room and other preparations work for console changes. The relocation of sectors itself will start 28<sup>th</sup> October and will last till 24<sup>th</sup> November.

The following illustrates the seven phases during which the re-location will be executed.

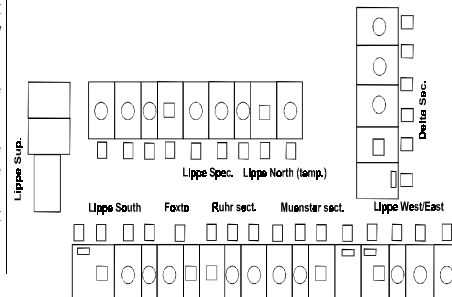
### Phase 1 (28<sup>th</sup> Oct. – 3<sup>rd</sup> Nov.)

- ✓ Lippe North sector and TRA will move to the Lippe East sector suite
- ✓ The vacated Lippe North sector suite will be reconstructed to accommodate Ruhr- and Münster sector.
- ✓ The new Ruhr- and Münster sector will be manned at the end of phase 1.



### Phase 2 (4<sup>th</sup> Nov. – 9<sup>th</sup> Nov.)

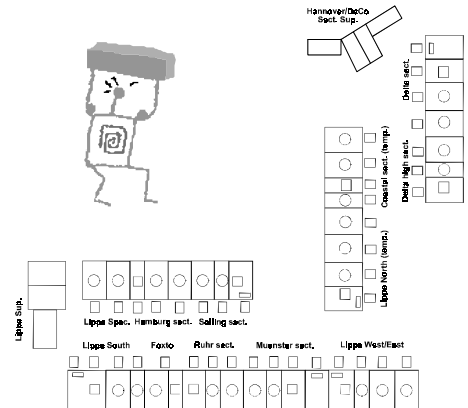
- ✓ Deactivation and relocation of the old Ruhr/ Münster sector consoles,
- ✓ Construction and activation as the new Lippe West/East sector in new position
- ✓ Manning of this (combined) sector at the end of phase 2.
- ✓ Preparation work for the rearrangement in the new Hamburg and Solling sectors.



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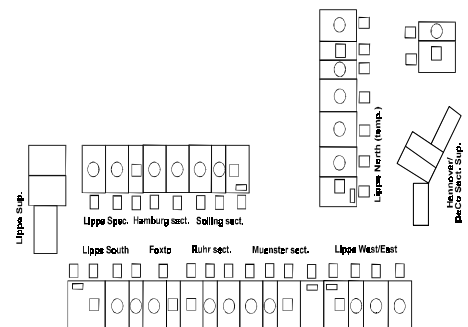
### Phase 3 (10<sup>th</sup> Nov.)

- ✓ Creation and manning of the new Hamburg and Solling sectors and Lippe Special Radar positions.
- ✓ Configuration and manning of the new Delta and Delta high sectors in the positions vacated by the old Hamburg and Solling sectors.
- ✓ Configure and populate the temporary Coastal sector and the provisional Lippe North sector.



### Phase 4 (12<sup>th</sup> Nov.)

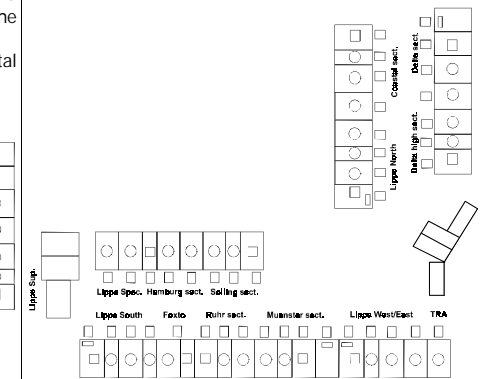
- ✓ Relocation and recommission of the Hannover/ DeCo Supervisor Suite



### Phase 5 and 6 (13<sup>th</sup> – 17<sup>th</sup> Nov.)

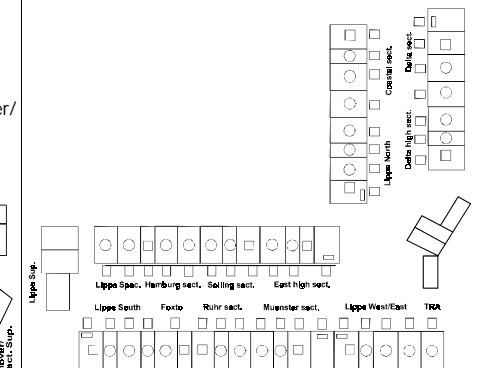
- ✓ Construction and relocation of final Coastal sector and Lippe North sector.

### Phase 7 (20<sup>th</sup> – 24<sup>th</sup> Nov.)



- ✓ Construction, commission and manning of the Hannover East sector

On 25<sup>th</sup> November, if everything goes according to



schedule, the Morning shift will find themselves in the new environment.

Only then will we be able to judge whether it was worth the effort and whether or not, the re-shuffle results in more efficiency, flexibility and a better working atmosphere.

Whether there will be enough controllers for manning additional sectors, such as the East High, is another story.

NZ



SHORTS!

The people who brought you T-CAS, weird phraseology and drug tests for pilots, i.e. the FAA, have come-up with a new way of making life easier for pilots and controllers.

Instead of meaningless letter designators for fixes, someone has come up with the following ones on the GPS 16 instrument approach for **Portsmouth**, New Hampshire: ITAWT, ITAWA, PUDYE, TTATT, IDEED.

Unconfirmed reports say that the novelty for the controllers wore off after 3 minutes and 42 seconds, but that the pilots just can't get enough of it. Bad ol pivots!

I tawt I  
Taw  
A Puddy Tat

Strong contender for the worst project management of the century, is the Airport Authority of India.

Last year, a ministerial investigation panel instructed the AAI to knock down the brand new tower at **Bombay**, because it was too tall and too close to the runway. If ICAO would find out, there would be trouble. The AAI could do nothing else but comply.

Meanwhile in **Madras**, while the dust in Bombay hadn't even settled, construction began of a new tower. A 150 ft control tower would replace the 50 year old building. Until someone found out that it would be...too high and too close to the runway. Luckily, they weren't any higher than 60 ft.

The building will now be con-

verted into an administrative building (with a great view: we suggest an office for the guy who calculates landing fees!). Construction of a third tower is under way.

Rumours that the person(s) responsible for the above were offered A3 posts in Eurocontrol, could not be confirmed by the editors.

And from India, back to the good'ol US of A, where Bill Clinton (in between other important - state- affairs) has approved **Washington National Airport** to be re-named **Ronald Reagan National Airport**.



Meant as an acknowledgement of his career and as an 87<sup>th</sup> birthday present, it has upset the controller community in the states. It was

Reagan who fired a few thousand controllers in 1981 during the PATCO strike.

NATCA (which replaced PATCO) Vice-president Randy Schwirtz' reaction: "Are they going to name the new federal building in Oklahoma City after the terrorist who blew the old one up as well?"

Over ~~to the country where~~ ATC was invented, and were they are trying to re-invent it everyday: the **United Kingdom**. There, the head of the Civil Aviation Authority narrowly escaped serious injuries while visiting the London Area & Terminal Control Centre (LATCC).

Reportedly, Sir Malcolm Field asked controllers working the Bristol sectors what time the centre closed at night...

More ~~UK pilots~~ Responding to allegations in the **Sunday Times** that the London ATC system can no longer safely cope with the

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traffic and that incidents are on the increase, the **National Air Traffic Services (NATS)**, gave some details on the incidents.

One incident is intriguing, to say the least: according to the newspaper, a DC10 and a concorde narrowly escaped a head on collision at Heathrow.

According to NATS, the aircraft did not "come within seconds of colliding", as the newspaper had written: the minimum separation was 2 Nm and 500 ft and the incident did not involve a NATS error.

Question is exactly how long a concorde and a DC10 would take to cover 2 Nm and/or 500 ft when flying towards each other. And even if no control error is involved, I don't think I ever want to see it happen...

And ~~then there was the story of~~ a delay... Sort of anyway...

If you thought Maastricht, London or Hong Kong were the only ones faced with delays getting new facilities to work, think again.

Oslo's new **Gardermoen** airport couldn't make the original opening ate of October 4<sup>th</sup> 1998. In a decision quoted as unavoidable, the Norwegians boldly moved the new date to... October 8<sup>th</sup> 1998, a delay of 96 hours. The humiliation....

On a recent flight to California on United, the flight attendant was quite a ~~character~~. Not much was standard airline phrasing... "We are now going to show you a safety video. There may be fifty ways to leave your lover, but there are only six ways to leave a 757, so pay attention."

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# So You Want To Be a Pilot

This letter was submitted following a school assignment by 9 year old Richie Derkins, who lives somewhere in South Carolina. It explains a lot....

*When I grow up I want to be a pilot because its a fun job and easy to do. That's why there are so many pilots flying around these days. Pilots dont need much school. They just have to learn to read numbers so they can read their instruments. I guess they should be able to read a road map, too... Pilots should be brave so they wont get scared if its foggy and they cant see, or if a wing or motor falls off... Pilots have to have good eyes to see through the clouds, and they cant be afraid of thunder or lightning because they are much closer to them than we are. The salary pilots make is another thing I like. They make more money than they know what to do with. This is because most people think that flying a plane is dangerous, except pilots dont because they know how easy it is. I hope I dont get air-sick because I get car-sick and if I get air-sick I couldnt be a pilot and then I would have to go to work.*

### The E-FILES Travel Advisory

If an Australian Immigrations Officer asks you: "Do you have a criminal record?", the wrong reply is: "Oh, I didn't know I still needed one".



### NEW MEMBERS?

If you know anyone who's interested in joining EGATS, please let them know that the next membership application deadline is December 1<sup>st</sup>. As always, this deadline will be strictly adhered to!

### This Issue's Deep Thought

You know that little indestructible black box that is used on planes, why can't they make the whole plane out of the same substance?

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Contributions by: Philip Marien(BM), Paul Hooper (PH), Günther Niemz (NZ).

Lay-out  
Philip Marien

Scanning  
An Agfa™ scanner

Corrections  
The Microsoft™ spell checker. So please blame Mr. Gates for wrong spelling.

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EGATS OUTPUT™ is published as soon as we get enough material together to make a decent enough looking magazine. Of this issue, 600 copies were printed and distributed to EGATS™ members.

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