



A FIELD GUIDE TO
NOTAMS

MARK ZEE OPSGROUP®

FOREWORD

For the last hundred years, the Notam has existed without fear of predator, unchanged and unchallenged.

It has lived freely in our aviation ecosystem, blissfully unaffected by technological development that has long seen the demise of other primitive species such as Morse Code, the Telegram, and Loran-C navigation.

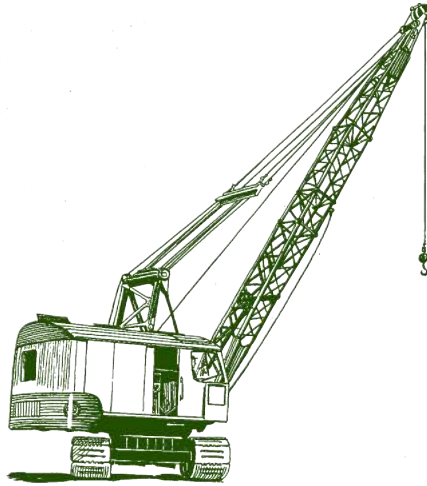
Notams too will disappear, so take advantage of their abundance while you can. With this Field Guide, you can embark on your own adventure, finding the multitude of varieties that still exist.

Take care: some specimens may appear benign, but can be poisonous, sometimes fatal. You must take care to correctly identify the species before consuming it.

Others, although relatively harmless, are considered pests and once released, can spread quickly.

Make haste. The era of the Notam as we know it is rapidly drawing to a close.

Follow our progress at DeathToNotams.com.



THE CRANE NOTAM

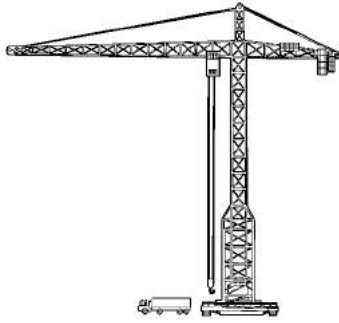
Notamus constructis

Very common in Europe and North America, the Crane Notam is part of the larger *irrelevantus* family. Most airports are near cities. Most cities – and airports - have construction, so there are a lot of cranes. These are at most a few hundred feet high, and usually very far from the runway. Nonetheless, any crane within Ubering-distance of an airport is added to the Notam system.

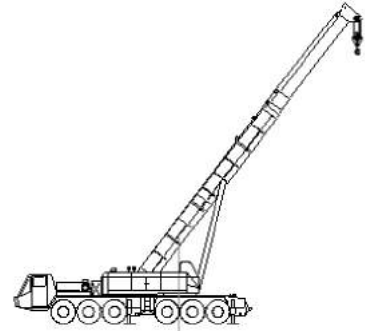
LIME MILAN A0319/18 - OBSTACLE CRANE ERECTED
WITH FLW CHARACTERISTICS: PSN (WGS- 84):
454232.90N 0093904.75E ELEV AGL 98.4FT/30.0M,
ELEV AMSL 1696.2FT/517.0M ROTATING JIB RADIUS:
50.0M PENETRATING CONICAL SFC DAY/NIGHT ICAO SGL
PROVIDED. REF AOC TYPE B NR ME 3/9. 17 JAN 13:35 2018
UNTIL 13 APR 21:59 2018 ESTIMATED. CREATED: 17 JAN
13:35 2018

Fig 1. An exceptional specimen captured in Milan: showing classic characteristics of the *irrelevantus constructis* genus: a set of co-ordinates that the pilot cannot plot, unnecessary builder jargon, no indication in plain language of where it is or what the impact to flight operations is – for a 98 feet high crane.

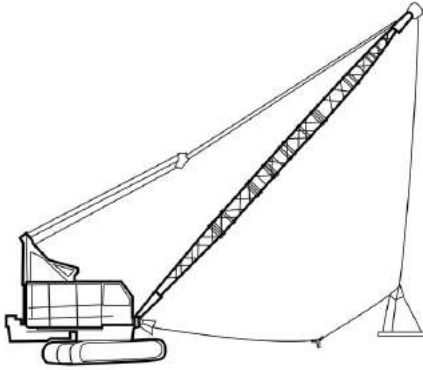
COMMON CRANES



TOWER CRANE



TRUCK CRANE



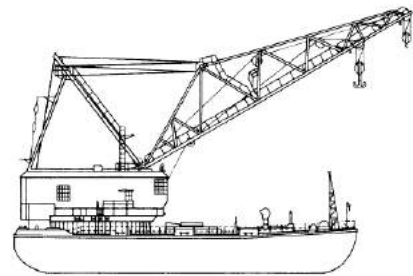
DRAGLINE CRANE



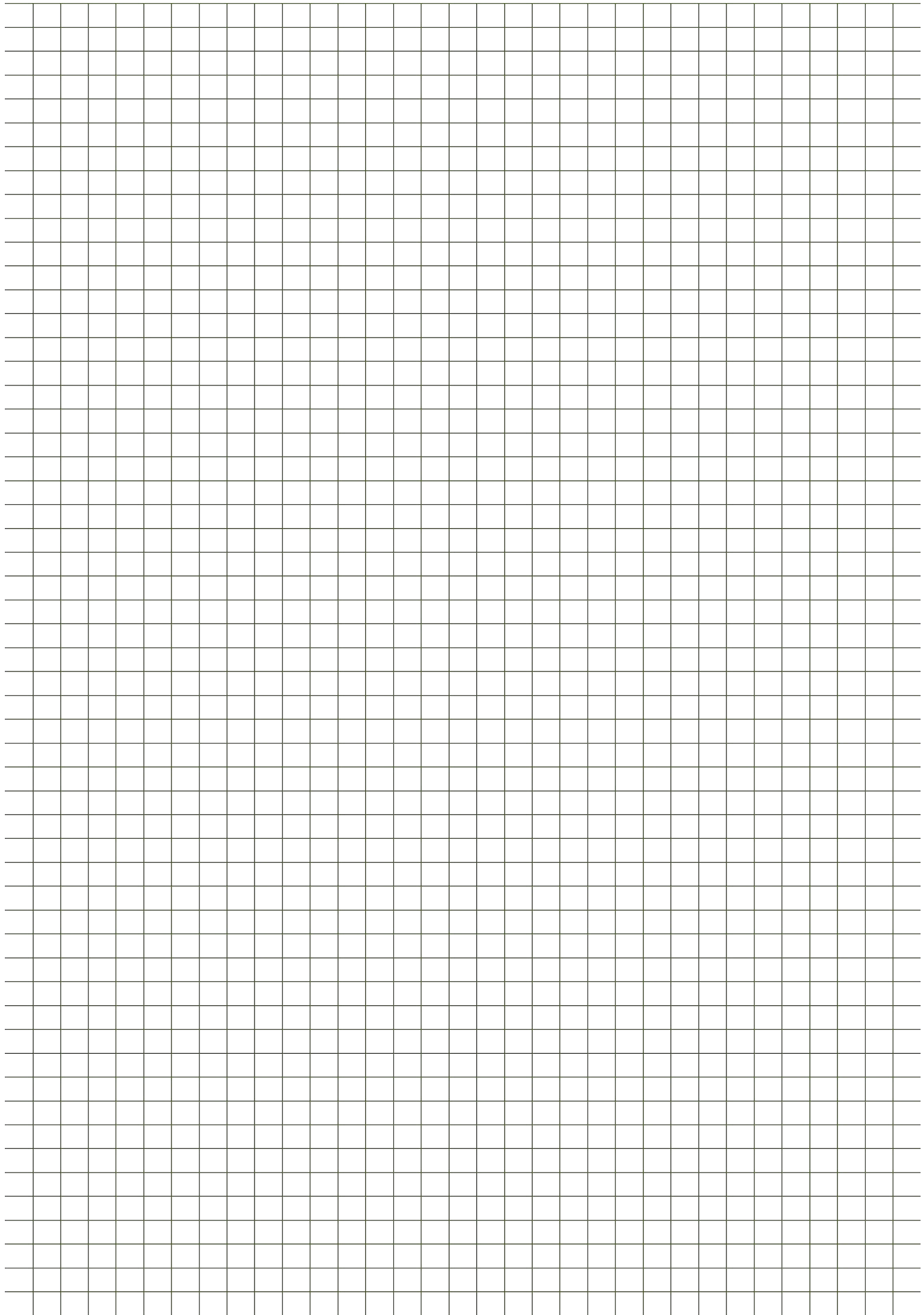
TERRAIN CRANE



WHOOPING CRANE

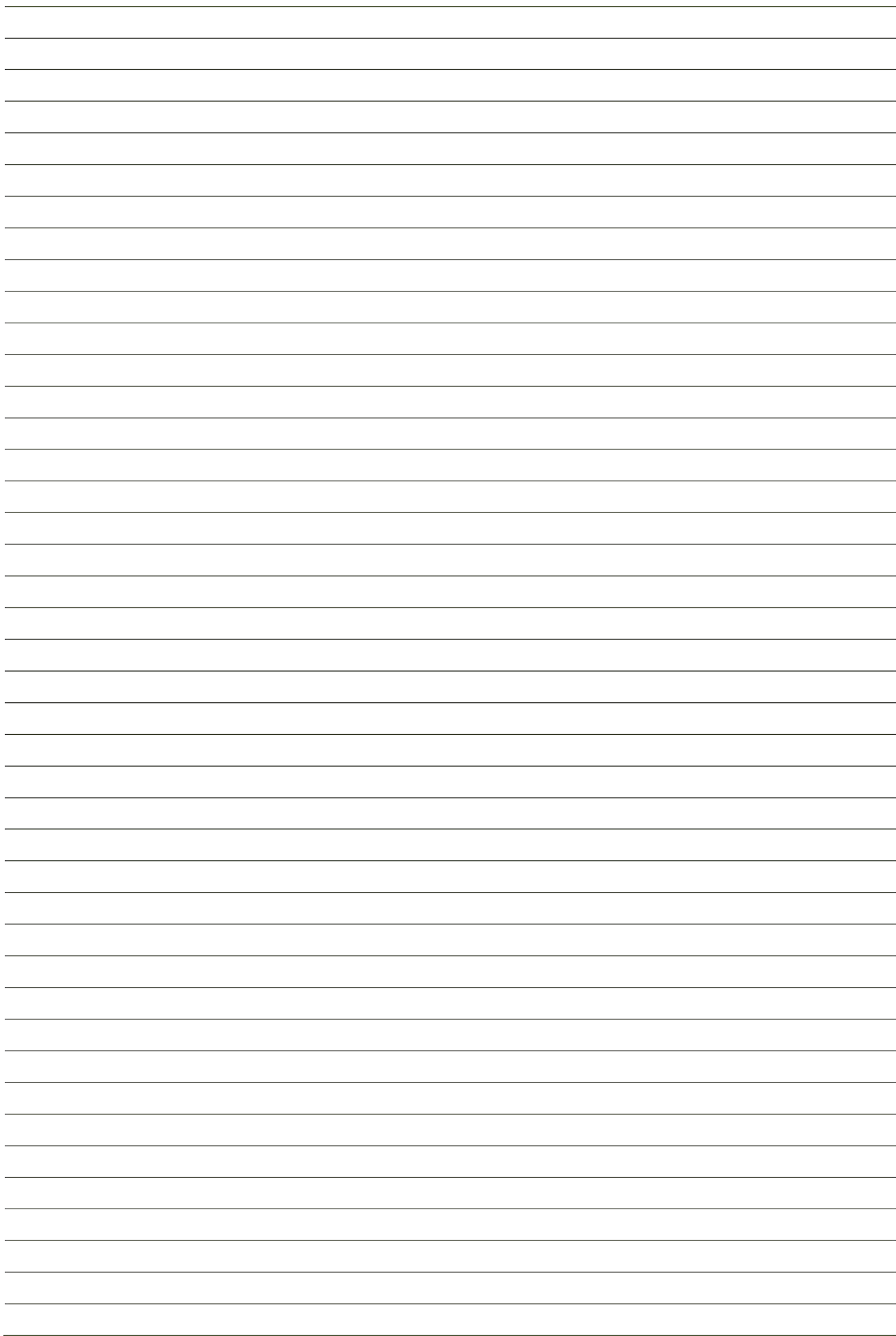


HARBOR CRANE



“The NOTAM system is fucked. We have Notams about those solar arrays near Vegas in every flight plan. Yes, I see them. I want to know if the damn runway is closed.”

AN AMERICAN PILOT
FLIGHTSERVICEBUREAU.ORG, 2018





THE BIRD NOTAM

Notamus animalis avem

Another species of the *irrelevantus* family, the Bird Notam is the most common variety of the *animalis* genus. Birds like grass. It comes as no surprise that flocks of them are attracted to airports. Even forewarned that there are birds about, there's not much you can do to avoid one that chooses to fly in front of your 737. The routine Bird Notam is, therefore, a statement of the obvious.

AGGH HONIARA A0002/18 -FLOCKS OF BIRDS EXIST IN THE VCY OF AD DURING NGT AND DAY. 03 JAN 00:00 2018 UNTIL 31 MAR 23:59 2018 ESTIMATED.

Fig 2.1 Garden variety Notamus avem

VTBD/BANGKOK A0585/17 -BIRD CONCENTRATION ON MANEUVERING AREA AND VICINITY OF AD. TYPE OF BIRDS - OPEN-BILLED STORK, PAINTED STORK, GREY HERON, PURPLE HERON, CATTLE EGRET, LITTLE EGRET, BARN OWL, LESSER WHISTLING DUCK, BLACK-WINGED STILT, ORIENTAL PRATINCOLE, COMMON MOORHEN, PIGEON BIRD WEIGHT - FM 20 UP TO 3500 GRAMS MAX FLOCK SIZE- 200 BIRDS. 23 MAR 08:45 2017 UNTIL 30 JUN 16:59 2017.

Fig 2.2 A test of your pedigree. Only a true Notam enthusiast can spot the difference between a cattle egret and a little egret.

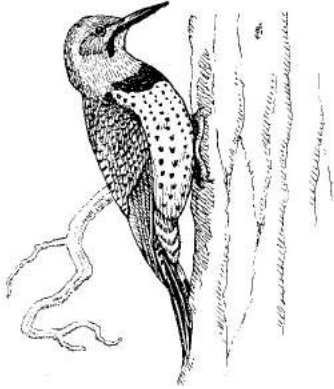
BIRDS OF NOTAMS



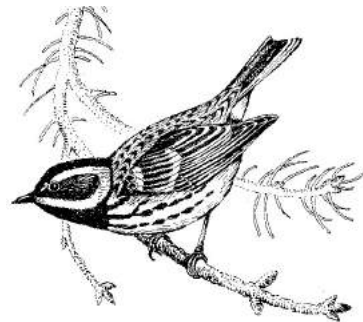
GREAT BLUE HERON



VAUX'S SWIFT



HAIRY WOODPECKER



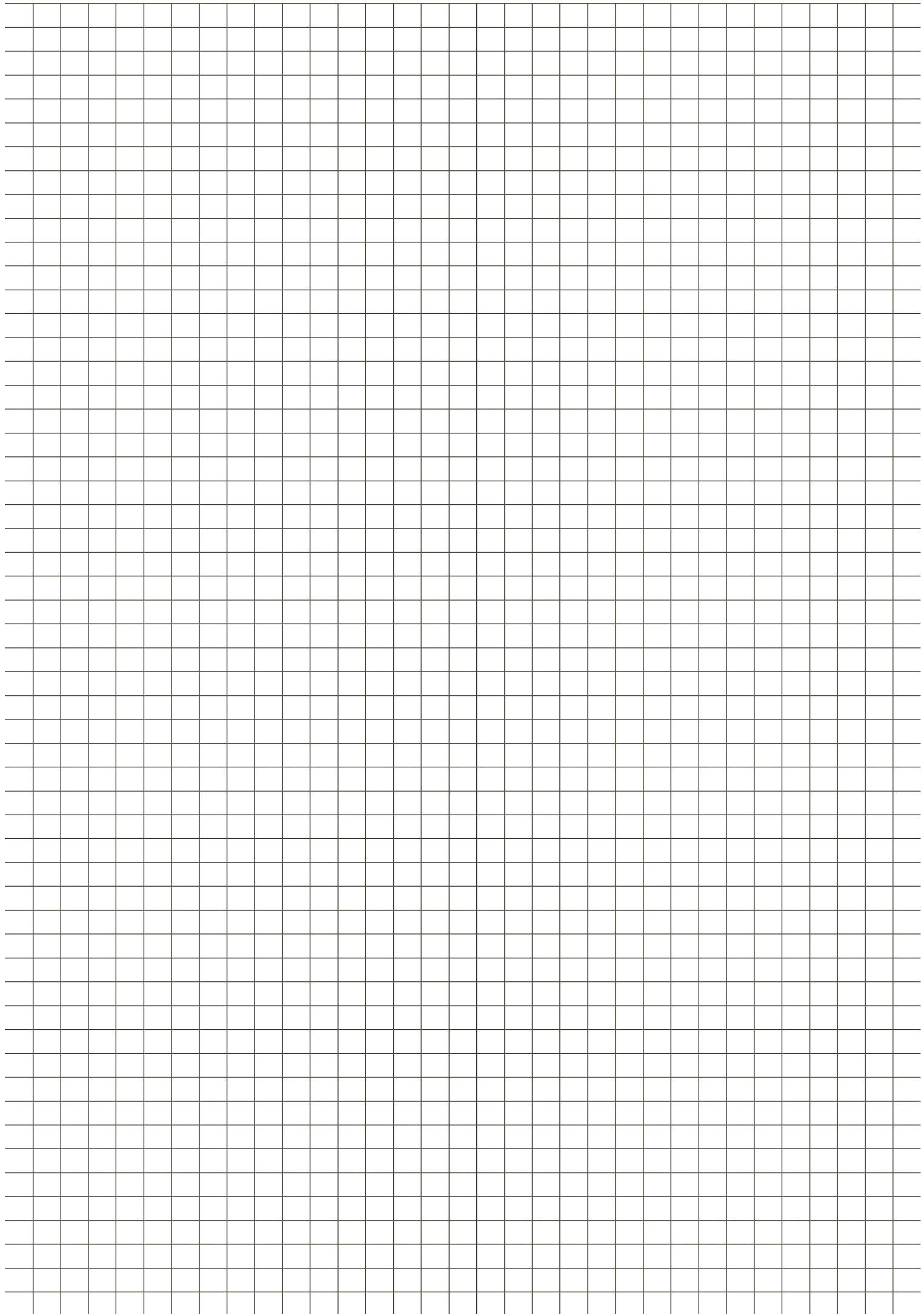
ORIENTAL PRATINCOLE



RAMP INSPECTOR FALCON

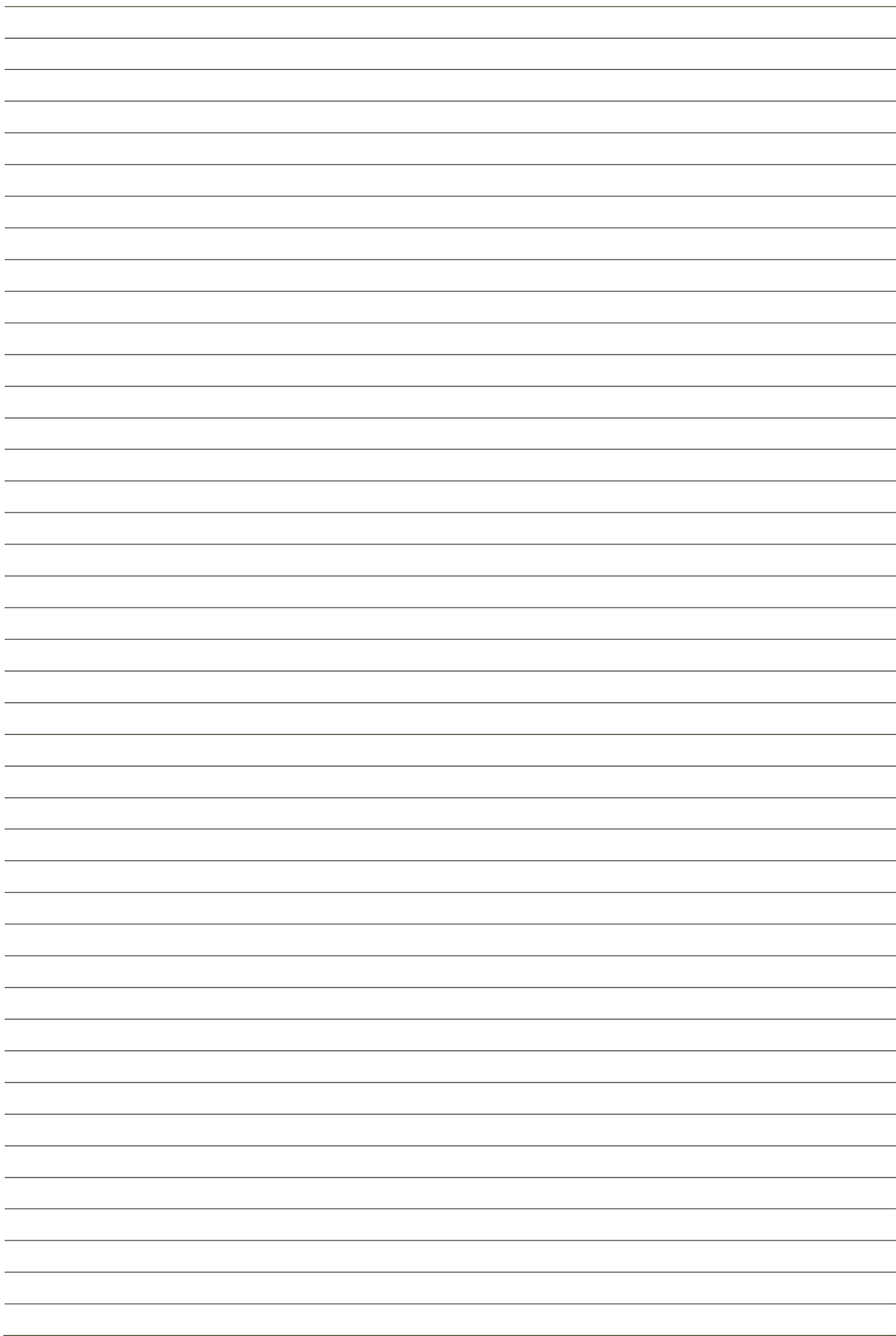


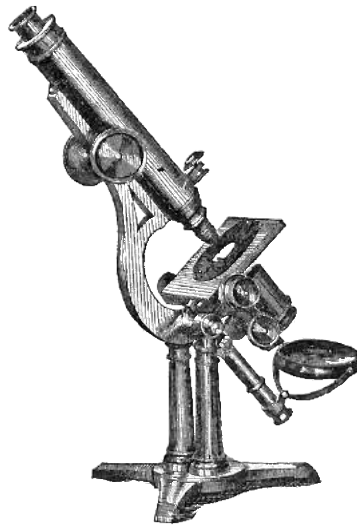
TOWER OWL



“ Make NOTAMS great again. ”

DONALD J. TRUMP
CAPTAIN, AIR FORCE ONE





THE TINY NOTAM

Notamus minimalis differentius

Practically invisible to the naked eye, the Tiny Notam communicates an almost imperceptible change. It takes up far more space than its contents warrant. The Tiny Notam results from a bureaucratic urge to correct an item of information, without considering whether this is in any way essential.

FKKL MAROUA SALAK B0520/15 -LIST OF AERODROMES,
LOCATIONS INDICATORS AND AERODROMES CHART READ **MAROUA-**
SALAK INSTEAD OF **MAROUA/SALAK** ASECNA AIP MODIFY 3AD2.7-04,3
26 NOV 15:05 2015 UNTIL PERM. CREATED: 01 SEP 09:06

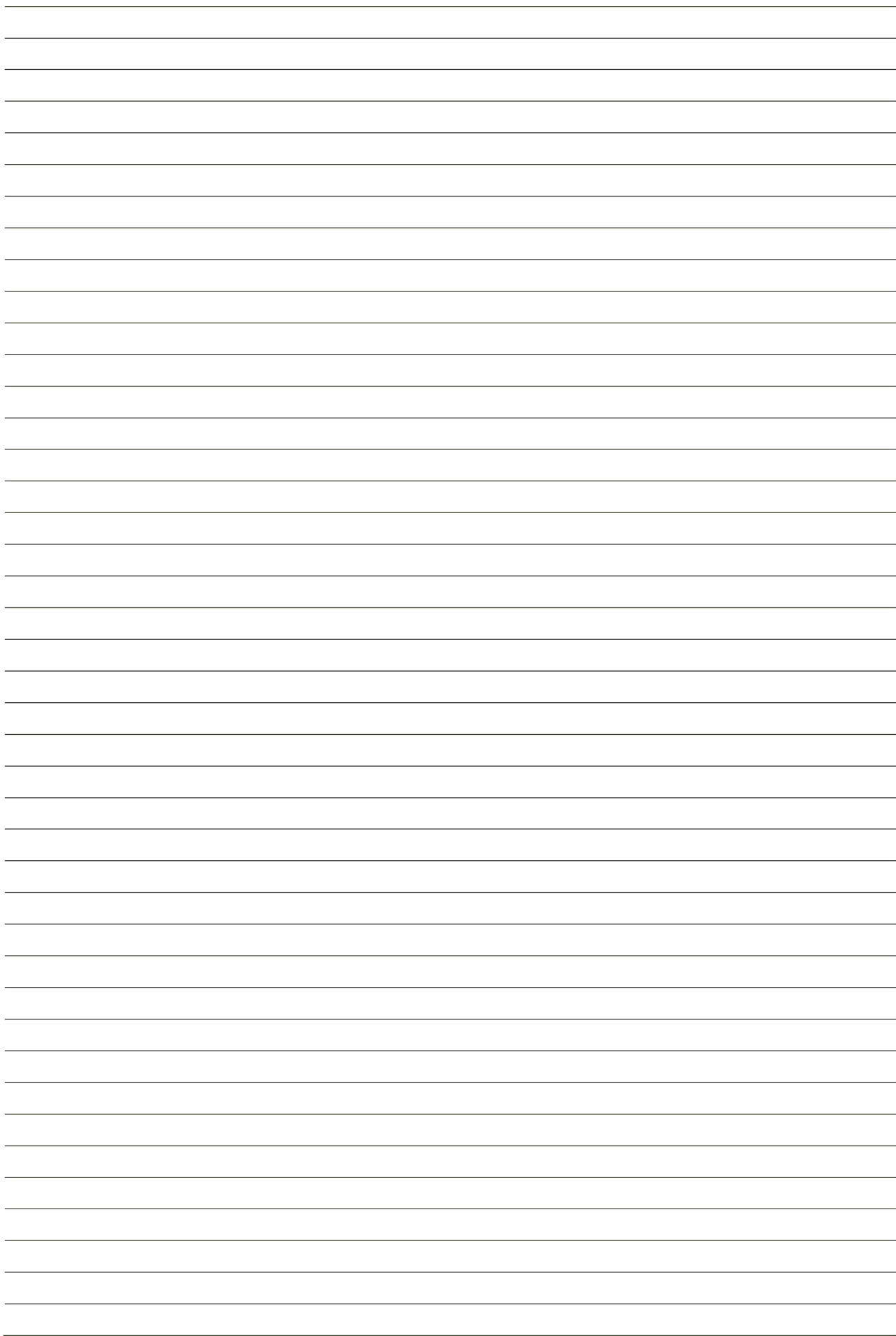
Fig 3.1 The classic *dash-to-slash* manoeuvre.

FMSD MADAGASCAR A1154/17 - 'COLLINE' PSN 250029S 0465754E
OBST ALT: - READ '**1732FT**' INSTEAD OF '**1733FT**' - COR ASECNA AIP
ATLAS 804B-4, 804B-5, 804B-8, 804B-9. 15 SEP 09:49 2017 UNTIL
PERM. CREATED: 15 SEP 11:29 2017

Fig 3.2 *Minimalis differentius*, showing a 0.01% increase in height.

**“ Notams are too easy to read.
Let’s convert them to binary
and transmit in Morse Code.
Using an Enigma machine. ”**

**JADED AIRLINE PILOT
*DISGRUNTLED, WA.***





THE CHECKLIST NOTAM

Notamus clandestinus

To the untrained eye, this appears to be a list of active Notams.

Not so. These are, in fact, coded numbers used by foreign intelligence agencies including MI6, Mossad and the CIA. Aware that almost nobody was reading Notams anymore, it was seen as the perfect vehicle to transmit instructions to operatives in the field.

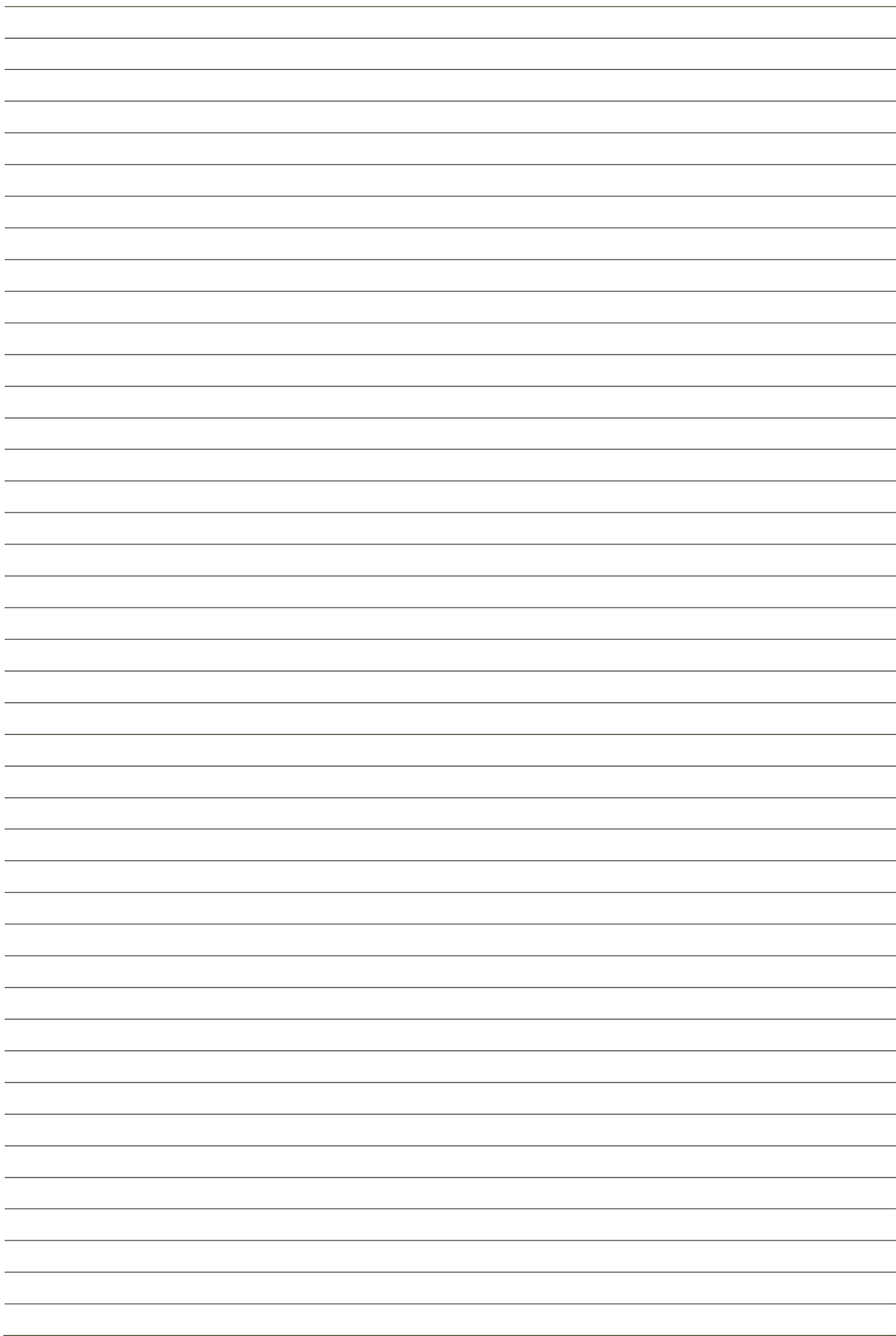
EDGG F0734/18 - (Issued for EDGG EDMM EDWW PART 1 OF 5) -
CHECKLIST YEAR=2013 1413 2720 3812 YEAR=2014 0067 0127 0423
0856 1097 1304 3151 3490 5166 5268 5807 5880 YEAR=2015 0569
0998 1695 1792 1839 1861 1925 2184 2368 2371 2376 2377 2391 2399
2403 2463 2474 2899 2922 2923 2931 3281 3298 3361 3615 3645 3646
3647 3781 3782 3786 3856 3901 3916 4294 4296 4303 4305 4306 4454
4471 4476 4645 4920 5062 5064 5069 5279 5488 5497 5498 5501 5510
5511 5512 5514 5526 5530 5531 5639 5970 5971 5972 6166 6204 6261
6326 6371 6424 6426 6429 6435 6438 6442 6443 6450 6451 6452 6459
6476 6572 6676 6680 6681 6682 6686 6689 6731 6752 6777 6901 6904
6921 7254 7284 7292 7370 7371 7372 7374 7387 7493 7572 7585 7586
7701 7787 7810 7811 7912 YEAR=2016 0052 0059 0062 0091 0092
0200 0201 0216 0276 0277 0359 0361 0364 0411 0465 0631 0632 0633
0656 0713 0717 0719 0722 0729 0799 0800 0848 0919 1040 1051 1112

Fig 4.1 Do we need to see this?

“ I fing love doing a flight from Newark to DC and getting Notams about the North Atlantic Tracks.**

Motherfr, if I end up on the Tracks during that leg in a 145, the Notams are the least of my damn problems. ”**

REGIONAL PILOT
THE GREAT FSB NOTAM SURVEY OF 2018





THE WILDLIFE NOTAM

Notamus animalis

Unbeknownst to most pilots, the Wildlife Notam is sponsored by the National Geographic foundation. Faced with declining magazine circulation, the Foundation made a secret agreement with individual states to promote interest in wildlife. The ruse is obvious – forewarning the pilot of Rhino movements, Goat grazing times, and Giraffe behaviour in mating season does zero to improve flight safety.

FBMN MAUN A0334/17 - ARR OF WHITE RHINOS FM REPUBLIC OF SOUTH AFRICA FOR RELOCATION TO THE OKAVANGO DELTA. PILOTS TO EXERCISE CAUTION ON LDG, TAXI AND TAKEOFF IN CASE ANIMALS BREAK LOOSE. ON THE 25TH, 28TH AND 1ST BTN 0300-0800, 25 MAR 03:00 2017 UNTIL 01 APR 08:00 2017.

GMMB CASABLANCA A642/17 -22MAY 1243Z SLAUGHTER BOARS OPERATION BY NIGHT WITHIN THE AIRPORT (GMMB). 27 MAY 00:00 2017 UNTIL 03 JUN 23:59 2017.

KTEB TETERBORO 04/192 -AD AP WILDLIFE HAZARD RED FOX. 28 APR 16:49 2018 UNTIL 31 MAY 21:00 2018.

Fig5.1 - 5.3 Rhinos, Boars (possibly not National Geographic) and Foxes

RECORD YOUR SIGHTINGS:

TIME & DATE

LOCATION

BEHAVIOUR

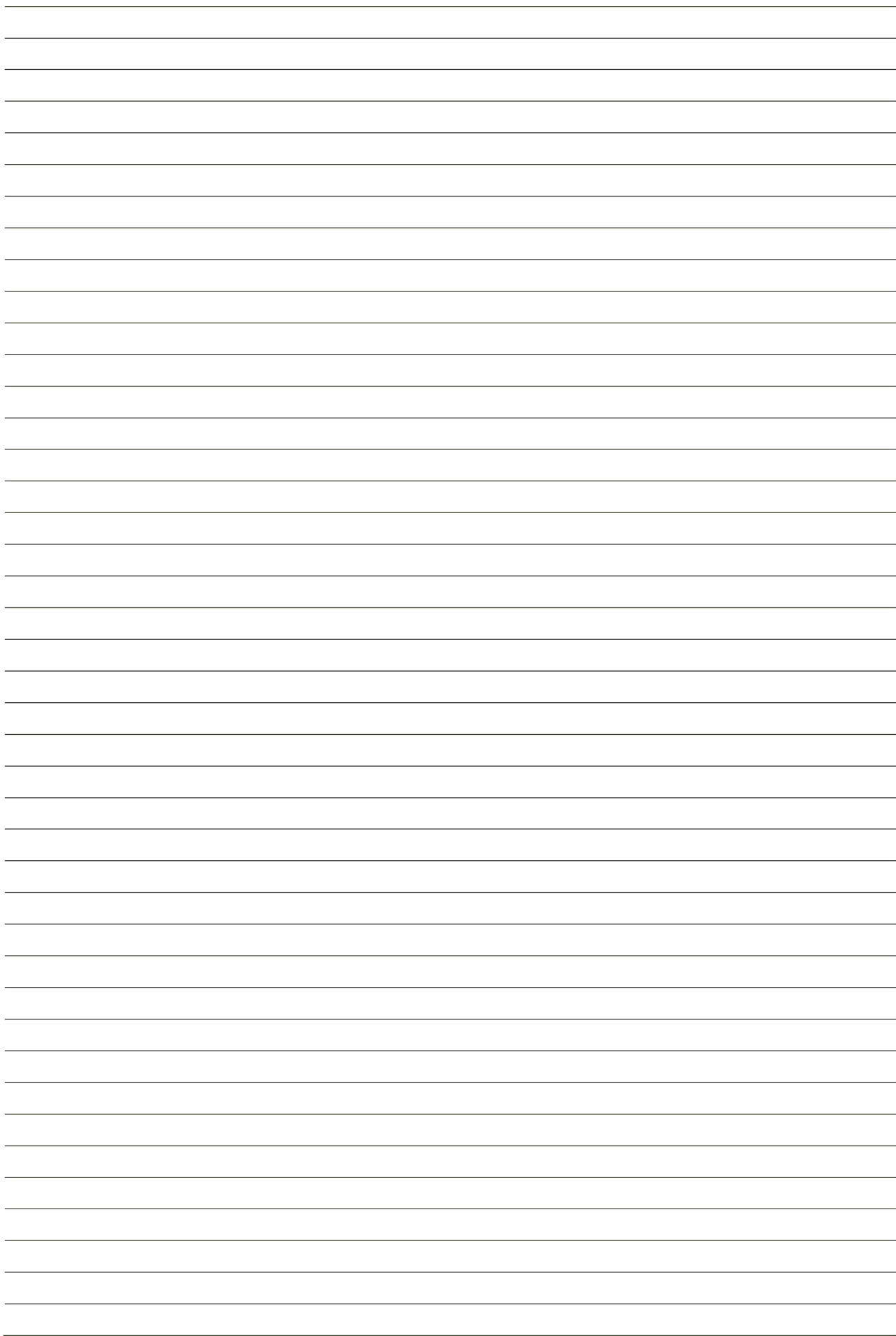
WEATHER



Lined area for writing notes, consisting of 20 horizontal lines.

**“ The Notam system is just fine.
If a pilot misses something, they
just aren’t a professional.
And if they screw it up, we’ll
prosecute. ”**

**THE CIVIL AVIATION AUTHORITY
COMING TO AN INCIDENT NEAR YOU.**





THE KILLER NOTAM

Notamus imperium

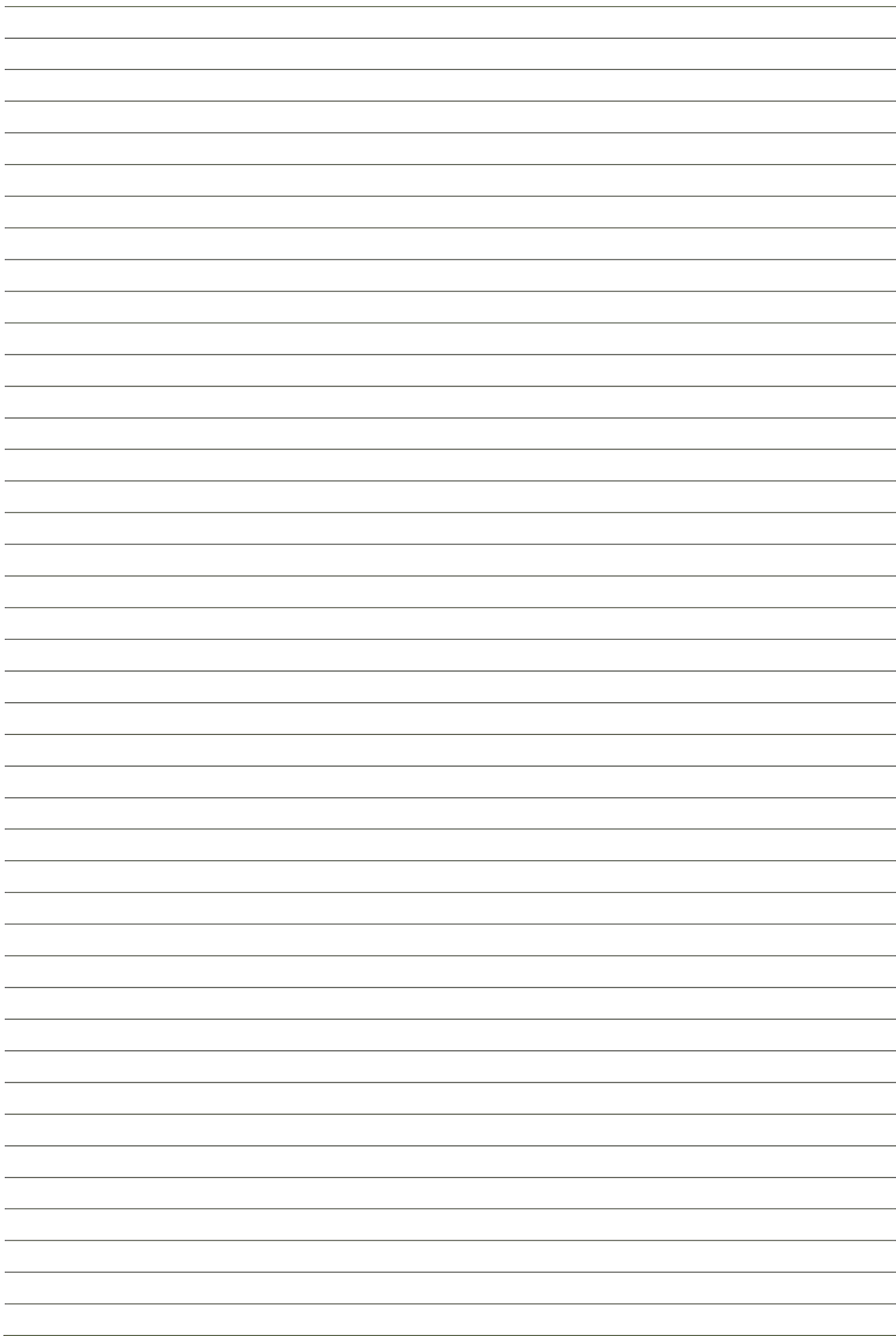
As a pilot, this is the Notam you want to keep your eyes open for. Incredibly difficult to spot, and that's because it's designed that way.

Malaysia 17, shot down over Ukraine in 2014, was the recipient of one of these. It was a coded warning that the crew ultimately never deciphered.

UKDV DNIPROPETROVSK FIR A1492/14 A) UKDV B) 1407141800 C) 1408142359EST E) TEMPO RESTRICTED AREA INSTALLED WITHIN FIR DNIPROPETROVSK BOUNDED BY COORDINATES : 495355N 0380155E 485213N 0372209E 480122N 0370253E 471352N 0365856E 465018N 0374325E 465900N 0382000E 470642N 0381324E THEN ALONG STATE BOUNDARY UNTIL POINT 495355N 0380155E. RESTRICTION NOT APPLIED FOR FLIGHTS OF STATE ACFT OF UKRAINE. F) FL260 G) FL320)

What if the Notam had simply said what was really going on? This is what the CAA could have written, but they chose not to speak clearly.

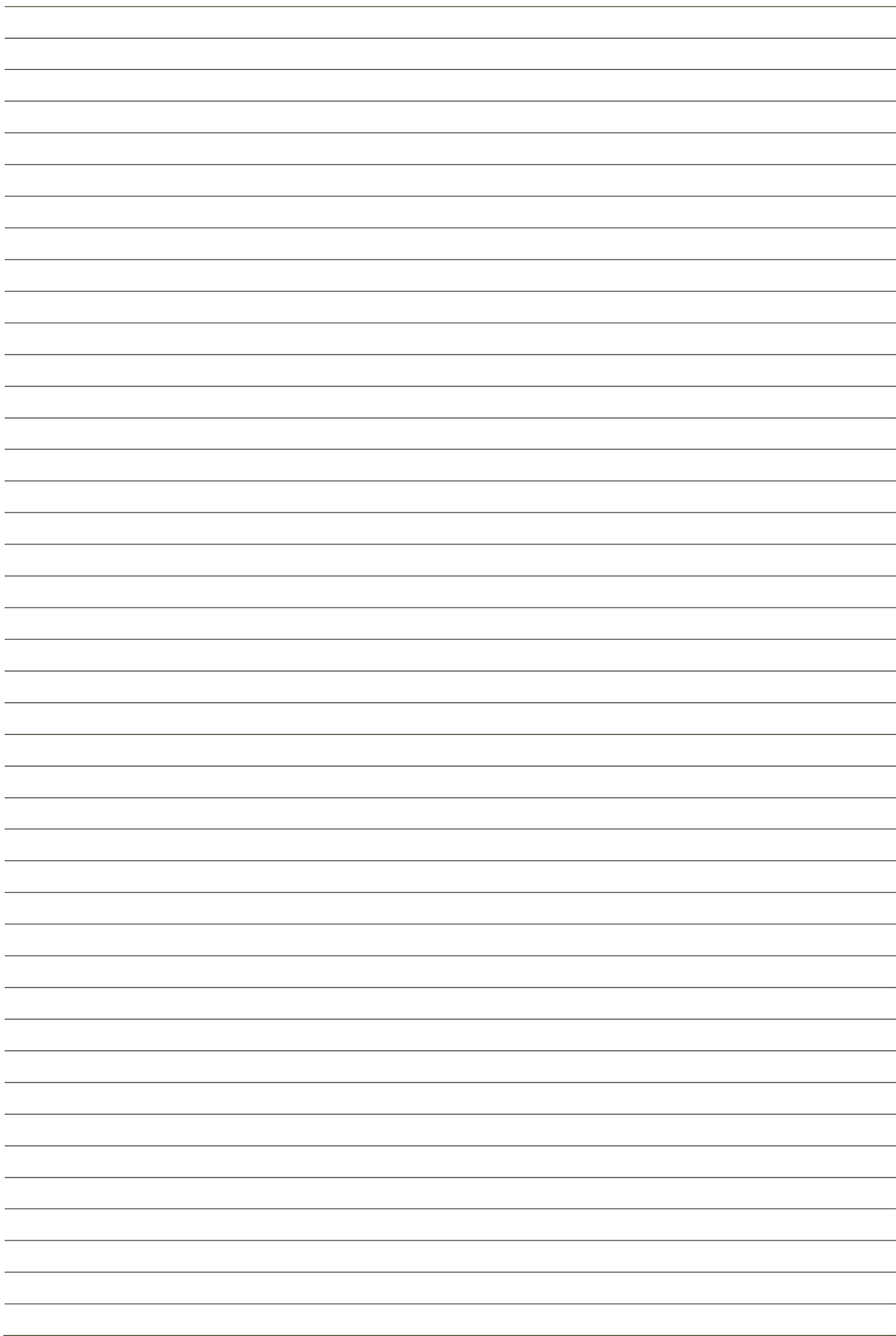
UKDV DNIPROPETROVSK FIR A1492/14 -
IN THE PAST 3 MONTHS
14 AIRCRAFT HAVE BEEN SHOT DOWN
IN THE EASTERN PART OF UKRAINE,
INCLUDING ONE ON MONDAY,
WHICH WAS AT FL210.



“ ”



THE CREW OF *MH17*.



AN ESSAY ON BULLSHIT NOTAMS

WE COMMUNICATE THE MOST CRITICAL FLIGHT INFORMATION, USING A SYSTEM INVENTED IN 1920, WITH A FORMAT UNCHANGED SINCE 1924, BURYING ESSENTIAL INFORMATION THAT WILL LOSE A PILOT THEIR JOB, AN AIRLINE THEIR AIRCRAFT, AND PASSENGERS THEIR LIVES, IN A MOUNTAIN OF UNREADABLE, IRRELEVANT BULLSHIT. YES, CASA AUSTRALIA, THAT'S YOU. YES, GREEK CAA, THAT'S YOU. AND YOU'RE NOT ALONE.

In an unintended twist of irony, the agencies seeking to cover their legal ass are party to creating the most criminal of systems – an unending flow of aeronautical sewage rendering the critical few pieces of information unfindable.

This is more than just hugely frustrating for each pilot, dispatcher, and controller that has to parse through it all; it's downright dangerous.

If you're a pilot, you'll either have already experienced this, or you're going to – you stuff something up, and then be told: “but there was a Notam out about that”. Sure enough, there it is in black and white (and in big capital letters). Do you think that “but there were 100 pages of them” is going to be a valid defence?

Well, it should be. The same agency conducting your post-incident interview is busy on the other end stuffing the system full of the garbage that prevented you from seeing it in the first place.

There are three parts to the problem: the system, the format, and the content. The system is actually quite amazing. The AFTN network connects every country in the world, and Notam information, once added, is immediately available to every user. Coupled with the internet, delivery is immediate.

The format is, at best, forgivable. It's pretty awful. It's a trip back in time to when Notams were introduced. You might think that was the 1960's, or the 50's. In fact, it's 1924, when 5-bit ITA2 was introduced. The world shifted to ASCII in 1963, bringing the Upper and Lower case format that every QWERTY keyboard uses today, but we didn't follow – nope, we'll stick with our 1924 format, thank you.

Read that again. 1924. Back then, upper case code-infested aeronautical messages would have seemed impressive and almost reassuring in their aloofness. But there weren't in excess of 1 million Notams per year, a milestone we passed in 2013. The 1 million milestone is remarkable in itself, but here's something else amazing: in 2006, there were only 500,000. So in seven years, Notams doubled. Why? Are there twice as many airports in the world? No. Twice as many changes and updates? Possibly. But far more likely: the operating agencies became twice as scared about leaving things out.

And so onto the culprit: the content. The core definition of a Notam is **ESSENTIAL** flight information. Essential, for anyone tasked with entering information into the Notam System, is defined as "absolutely necessary; extremely important." Here's a game you can play at home. Take your 100 page printout of Notams, and circle that ones that you think can be defined as essential. See how many fit that bill.

So why is all this garbage in the system? Because the questions that the creators of Notams ask are flawed. The conversation goes like this:

– "Should we stick this into a Notam?"

– "Yeah, we'd better, just in case."

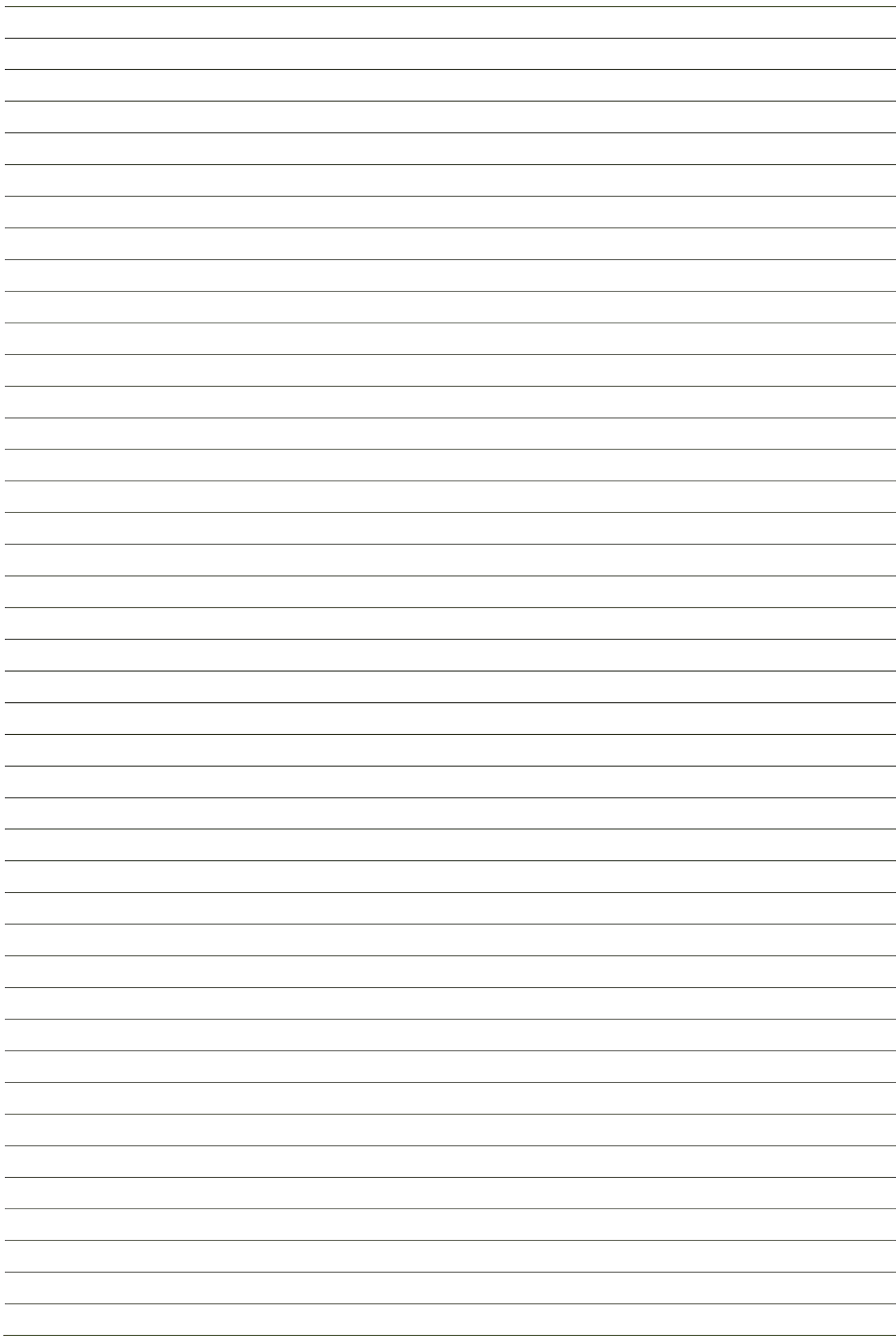
How many are actually asking, "Is this essential information that aircrew need to know about?" Almost none. Many 'solutions' to the Notam deluge involve better filtering, Q codes, and smart regex's. This overlooks the core problem. It's not what comes out that needs to be fixed, it's what goes in.

Even in 1921, we had much the same problem. Obstacle, 18 feet high, several miles from the runway.

Nobody cares. Unless you've parked the Eiffel Tower on the threshold, leave this stuff for the AIP. And nobody cares about kites either. Nor about goat-grazing times. We don't care if your bird scarer is U/S. We don't care if there's a cherry-picker fixing a bulb somewhere. We don't care when you're cutting your grass.

Nor do we care about closed taxiways. The only way I can get onto a taxiway is with an ATC clearance, and ATC will not clear me onto a closed taxiway.

WE CARE IF THE AIRPORT IS GOING TO BE CLOSED WHEN WE GET THERE. IF WE'RE GOING TO HAVE TO DIVERT BECAUSE THE RUNWAY IS SHUT. IF SOMEONE MIGHT SHOOT AT US. IF THERE ARE NEW RULES. WE CARE ABOUT THE CRITICAL ITEMS, BUT WE WON'T SEE THEM AS THINGS STAND.



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