

# SAFA

## Safety Assessment of Foreign Aircraft Programme



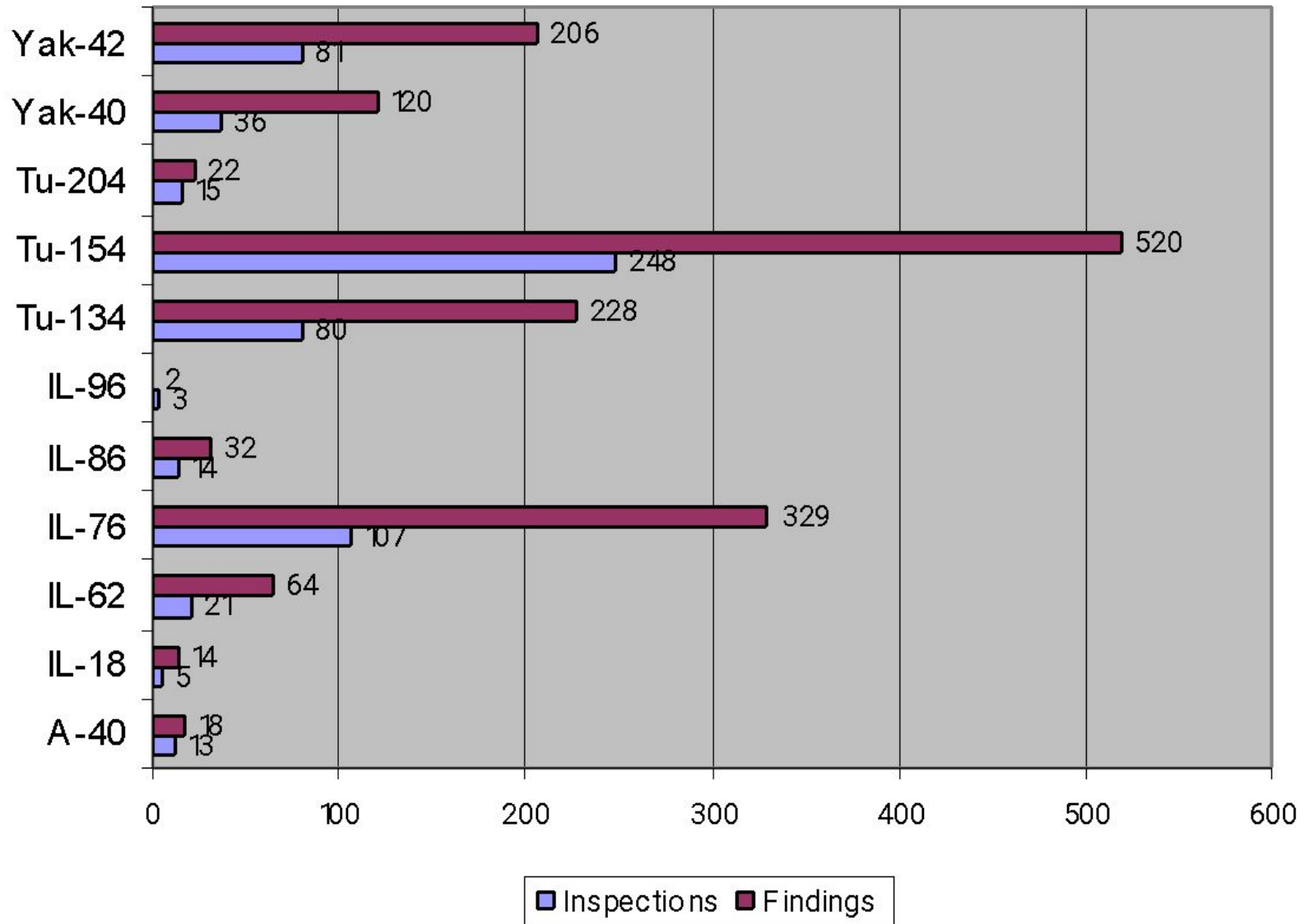
**Wim Ovaa - SAFA Programme Co-ordinator**

# SAFA results: aircraft types

## Russian Federation State of Design

|                |              | 2000       |            | 2001       |            | 2002       |            | total      |             |             |
|----------------|--------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|
| aircraft type  | code         | I          | F          | I          | F          | I          | F          | I          | F           | F/I         |
| Beriev A-40    | BE40         | 6          | 8          | 3          | 9          | 4          | 1          | 13         | 18          | 1.38        |
| Ilyushin Il-18 | IL18         | 3          | 8          | 1          | 2          | 1          | 4          | 5          | 14          | 2.80        |
| Ilyushin Il-62 | IL62         | 10         | 27         | 7          | 12         | 4          | 25         | 21         | 64          | 3.05        |
| Ilyushin Il-76 | IL76         | 42         | 109        | 44         | 150        | 21         | 70         | 107        | 329         | 3.07        |
| Ilyushin Il-86 | IL86         | 2          | 2          | 6          | 23         | 6          | 7          | 14         | 32          | 2.29        |
| Ilyushin Il-96 | IL96         | 0          | 0          | 2          | 2          | 1          | 0          | 3          | 2           | 0.67        |
| Tupolev Tu-134 | T134         | 29         | 82         | 38         | 129        | 13         | 17         | 80         | 228         | 2.85        |
| Tupolev Tu-154 | T154         | 54         | 136        | 62         | 110        | 132        | 274        | 248        | 520         | 2.10        |
| Tupolev Tu-204 | T204         | 5          | 6          | 6          | 5          | 4          | 11         | 15         | 22          | 1.47        |
| Yak-40         | YK40         | 17         | 43         | 10         | 40         | 9          | 37         | 36         | 120         | 3.33        |
| Yak-42         | YK42         | 24         | 67         | 17         | 56         | 40         | 83         | 81         | 206         | 2.54        |
|                | <b>total</b> | <b>192</b> | <b>488</b> | <b>196</b> | <b>538</b> | <b>235</b> | <b>529</b> | <b>623</b> | <b>1555</b> | <b>2.50</b> |

# SAFA results: aircraft types



# SAFA results: YAK-40

| Description                      | Insp. per item (III) | findings (F) |        |        |       | ratio                          |      |
|----------------------------------|----------------------|--------------|--------|--------|-------|--------------------------------|------|
|                                  |                      | cat. 1       | cat. 2 | cat. 3 | total | $F(\text{cat.2+3})/\text{III}$ | rank |
| A03 Equipment                    | 32                   | 7            | 7      | 4      | 18    | 0.344                          | 1    |
| A17 Harness                      | 31                   | 3            | 6      | 2      | 11    | 0.258                          | 2    |
| B13 Safety of passenger baggages | 25                   | 1            | 3      | 1      | 5     | 0.160                          | 4    |

# SAFA results: YAK-40

## item A03: equipment

| year | operator                 | code | registration | F cat. | remarks                            |
|------|--------------------------|------|--------------|--------|------------------------------------|
| 2001 | SEVERTAL-CHEREPOV<br>ETS | 7SO  | RA-88296     | 2      | NEITHER GPWS NOR SSOS<br>INSTALLED |

## item A17: harness

| year | operator                 | code | registration | F cat. | remarks                            |
|------|--------------------------|------|--------------|--------|------------------------------------|
| 2001 | SEVERTAL-CHEREPOV<br>ETS | 7SO  | RA-88296     | 2      | NO EVIDENCE OF EXPIRATION<br>DATES |
| 2001 | SEVERTAL-CHEREPOV<br>ETS | 7SO  | RA-87586     | 2      | Seat belts instead of harnesses    |
| 2000 | ROSNEFT-BALTIKA,<br>JSC  | RNB  | RA-21500     | 3      | No harness for flight crew         |

# SAFA results: YAK-42

| Description                                       | Insp. per item (III) | findings (F) |        |        |       | ratio          |      |
|---|----------------------|--------------|--------|--------|-------|----------------|------|
|   |                      | cat. 1       | cat. 2 | cat. 3 | total | F(cat.2+3)/III | rank |
| A03 Equipment                                     | 61                   | 2            | 17     | 1      | 20    | 0.295          | 2    |
| B07 Emergency exit, lighting and marking, torches | 61                   | 1            | 9      | 2      | 12    | 0.180          | 5    |
| B12 Access to emergency exits                     | 62                   |              | 9      |        | 9     | 0.145          | 6    |



# SAFA results: YAK-42

## item A03: equipment

| year | operator                          | code | registration | F cat. | remarks                                   |
|------|-----------------------------------|------|--------------|--------|---|
| 2001 | VOLGA AVIAEXPRESS<br>COMPANY LTD. | WLG  | RA-42364     | 2      | aircraft not equipped with GPWS only CCOC |

## item B07: Emergency exit, lighting and marking, torches

| year | operator                      | code | registration | F cat. | remarks  |
|------|-------------------------------|------|--------------|--------|--|
| 2002 | ENKOR, JOINT STOCK<br>COMPANY | ENK  | RA-42388     | 2      | Not all torches are usable for the cabin stations. |

## item B12: access to emergency exits

| year | operator                      | code | registration | F cat. | remarks   |
|------|-------------------------------|------|--------------|--------|---|
| 2001 | SARATOV AVIATION<br>DIVISION  | SOV  | RA-42346     | 2      | Overwing emergency exits are blocked by seat rows ( back rests) |
| 2002 | ENKOR, JOINT STOCK<br>COMPANY | ENK  | RA-42388     | 2      | Overwing emergency exits are blocked by seats.                  |

# SAFA results: IL-76

| Description                | Insp. per item (III) | findings (F) |        |        |       | ratio                       |      |
|----------------------------|----------------------|--------------|--------|--------|-------|-----------------------------|------|
|                            |                      | cat. 1       | cat. 2 | cat. 3 | total | $F(\text{cat.2+3})/II$<br>I | rank |
| A07 Minimum Equipment List | 79                   | 4            | 10     |        | 14    | 0.127                       | 6    |
| A17 Harness                | 82                   | 7            | 17     | 10     | 34    | 0.329                       | 1    |
| A18 Oxygen equipment       | 78                   | 6            | 11     | 2      | 19    | 0.167                       | 1    |



# SAFA results: IL-76

## item A17: Harness

| year | operator                              | code | registration | F cat. | remarks   |
|------|---------------------------------------|------|--------------|--------|---|
| 2001 | VOLGA-DNEPR                           | VDA  | EW-76737     | 3      | 2 seats missing harness in cockpit  |
| 2001 | ATRAN-AVIATRAN<br>S CARGO<br>AIRLINES | VAS  | RA-76820     | 3      | NO HARNESS AT F/E AND R/O SEAT IN<br>COCKPIT  |
| 2000 | AVIAPRAD,<br>JOINT-STOCK<br>COMPANY   | VID  | RA-76386     | 2      | Only Capt and F/O had full harnesses. Other<br>crew had lapstraps only.   |
| 2001 | ATRAN-AVIATRAN<br>S CARGO<br>AIRLINES | VAS  | RA-76820     | 2      | There are no harness for F/E, Nav.- and<br>Radiooperator seat   |
| 2001 | AEROFLOT                              | AFL  | RA-78844     | 2      | Seat belts instead of harness for the F/E/Nav.<br>and operator seats  |
| 2001 | EAST LINE<br>AIRLINES                 | ESL  | UN           | 2      | PILOTS SEATS HARNESSSES NOT USED AND<br>FLIGHT ENGINNER SEAT NOT EQUIPED  |
| 2002 | VOLGA-DNEPR                           | VDA  | RA-76758     | 2      | HARNESS ONLY FOR THE 2 PILOTS.SEATS<br>BELTS INSTEAD OF HARNESS FOR THE<br>FLIGHT ENGINEER<br>AND THE JUMP SEAT LOCATED BACK<br>AND BETWEEN THE PILOTS SEATS. |

# SAFA results: IL-76

## item A18: Oxygen equipment

| year | operator                            | code | registration | F cat. | remarks  |
|------|-------------------------------------|------|--------------|--------|--|
| 2000 | MAGADANAVIAL<br>ISING, JSC          | MLZ  | RA-76787     | 2      | NOT ACCORDING TO ANNEX 6   |
| 2001 | VOLGA-DNEPR                         | VDA  | RA-76758     | 2      | Oxygen equipment is not usable<br>for cockpit crew   |
| 2001 | AEROFLOT -<br>RUSSIAN<br>INT. AIRL. | AFL  | RA-78844     | 2      | Oxygen masks for the cockpit crew<br>are not usable  |
| 2001 | EAST LINE<br>AIRLINES               | ESL  | UN           | 2      | THE O2 MASKS CONNECTED<br>DON'T HAVE<br>PROTECTION AGAINST<br>SMOKE. SEVERAL<br>OLD FULL FACES ARE<br>STOWED IN A COCKPIT'S<br>RACK. |

# SAFA results: Tu-134

| Description                 | Insp. per item (III) | findings (F) |        |        |       | ratio          |      |
|-----------------------------|----------------------|--------------|--------|--------|-------|----------------|------|
|                             |                      | cat. 1       | cat. 2 | cat. 3 | total | F(cat.2+3)/III | rank |
| A03 Equipment               | 56                   | 1            | 17     |        | 18    | 0.304          | 1    |
| A17 Harness                 | 59                   | 4            | 11     | 2      | 17    | 0.220          | 3    |
| A18 Oxygen equipment        | 55                   | 1            | 4      | 3      | 8     | 0.127          | 8    |
| B02 Cabin attendant station | 53                   | 2            | 6      |        | 8     | 0.113          | 9    |

# SAFA results: Tu-134

| Description                     | Insp. per item (III) | findings (F) |        |        |       | ratio                       |      |
|---------------------------------|----------------------|--------------|--------|--------|-------|-----------------------------|------|
|                                 |                      | cat. 1       | cat. 2 | cat. 3 | total | $F(\text{cat.2+3})/II$<br>I | rank |
| B07<br>Emergency exit, lighting | 55                   | 5            | 8      | 1      | 14    | 0.164                       | 6    |
| B09 Oxygen supply               | 51                   | 7            | 8      | 1      | 16    | 0.176                       | 4    |
| B12 Access to emergency exits   | 57                   | 4            | 13     | 2      | 19    | 0.263                       | 2    |

# SAFA results: Tu-134

## item A03: Equipment

| year | operator                       | code | registration | F cat. | remarks   |
|------|--------------------------------|------|--------------|--------|---|
| 2002 | AEROFLOT                       | AFL  | RA-65623     | 2      | SSOS instead of GPWS                                      |
| 2001 | AEROFLOT                       | AFL  | RA-65783     | 2      | CCOC instead of GPWS                                      |
| 2000 | AERO RENT, JOINT STOCK COMPANY | NRO  | RA-65557     | 2      | Only SSOS installed                                       |
| 2000 | AIR ENTERPRISE PULKOVO         | PLK  | RA-65004     | 2      | GPWS NOT IN ACCORDANCE WITH ICAO ANNEX 6;NO TCAS ON BOARD |
| 2000 | AIR ENTERPRISE PULKOVO         | PLK  | RA-65144     | 2      | SSOS installed, but not demonstrated to the inspectors.   |
| 2001 | TULPAR                         | TUL  | RA-65079     | 2      | NO GPWS BUT SSOS ONLY                                     |
| 2000 | ERMOLINO FLYING TEST RESEARCH  | EFE  | RA-65099     | 2      | CCOC only.  |
| 2001 | UNKNOWN                        | UN   | RA-65692     | 2      | CCOC fitted to this aircraft                              |
| 2001 | UNKNOWN                        | UN   | RA-65692     | 2      | ONLY CCOC ON BOARD  |
| 2000 | FLIGHT RESEARCH INST., GROMOV  | LII  | RA-65926     | 2      | CCOC instead of GPWS.                                     |

# SAFA results: Tu-134

## item A17: Harness

| year | operator                  | code | registration | F cat. | remarks  |
|------|---------------------------|------|--------------|--------|--|
| 2000 | AIR ENTERPRISE<br>PULKOVO | PLK  | RA-65004     | 2      | NO HARNESS AT ANY CREW STATION   |
| 2001 | TULPAR                    | TUL  | RA-65079     | 3      | FLIGHT ENGINEER'S AND NAVIGATOR'S SEATS ARE NOT EQUIPED WITH HARNESSES (ONLY SEAT BELTS) |
| 2000 | AIR ENTERPRISE<br>PULKOVO | PLK  | RA-65113     | 2      | Harness available but not in use   |
| 2001 | AIR ENTERPRISE<br>PULKOVO | PLK  | RA-65113     | 2      | No shoulder straps for flight engineer or navigator fitted.                              |
| 2001 | AIR ENTERPRISE<br>PULKOVO | PLK  | RA-65088     | 2      | No shoulder harness for Navigator and Flight Engineer                                    |
| 2001 | UNKNOWN                   | UN   | RA-65692     | 2      | CREW MEMBERS SEATS HARNESS NOT USED DURING THE FLIGHT                                    |



# SAFA results: Tu-134

## item A18: Oxygen equipment

| year | operator                                | code | registration | F cat. | remarks   |
|------|---|------|--------------|--------|---|
| 2001 | PERM STATE<br>AIR<br>ENTERPRIS<br>E     | PGP  | RA-65775     | 2      | Crew oxygen equipment original issue, badly in need of replacement  |
| 2002 | AEROFLOT -<br>RUSSIAN<br>INT. AIRL.     | AFL  | RA-65623     | 2      | No direct access to oxygen equipment  |
| 2001 | TULPAR                                  | TUL  | RA-65079     | 3      | OXYGEN EQUIPMENT UNSUITABLE FOR EMERGENCY USE (SMOKE PROTECTION NOT EASILY AVAILABLE IN FLIGHT)   |
| 2002 | RUSAIR,<br>JOINT-STO<br>CK AIR<br>COMP. | CGI  | RA-65756     | 2      | Oxygen masks for the cockpit crew are not according ICAO annex 6  |
| 2001 | UNKNOWN                                 | UN   | RA-65943     | 3      | THE O2 SYSTEM IS CONNECTED BUT WITHOUT EYES PROTECTION. IT IS NECESSARY TO DISCONNECT THE SYSTEM AND TO CONNECT AN OTHER MASK (OLD ONE) IN CASE OF SMOKE IN THE COCKPIT |

# SAFA results: Tu-134

## item B02: Cabin attendant's station and crew rest area

| year | operator                            | code | registration | F cat. | remarks  |
|------|-------------------------------------|------|--------------|--------|--|
| 2001 | AEROFLOT -<br>RUSSIAN INT.<br>AIRL. | AFL  | RA-65566     | 2      | Cabin attendant's seat equiped with seat belt only |
| 2000 | AIR ENTERPRISE<br>PULKOVO           | PLK  | RA-65004     | 2      | NO HARNESS AT C/A STATION                          |

## item B07: Emergency exit, lighting and marking, torches

| year | operator                            | code | registration | F cat. | remarks   |
|------|-------------------------------------|------|--------------|--------|---|
| 2000 | AIR ENTERPRISE<br>PULKOVO           | PLK  | RA-65004     | 2      | NO TORCH AT CABIN CREW POSITION REAR; NO FLOOR PROX. LIGHTING |
| 2001 | TULPAR                              | TUL  | RA-65079     | 3      | NO ESCAPE PATH FLOOR MARKINGS, NO TORCHES                     |
| 2000 | ERMOLINO FLYING<br>TEST<br>RESEARCH | EFE  | RA-65099     | 2      | Emergency exit lights partly u/s                              |

# SAFA results: Tu-134

## item B09: Oxygen Supply

| year | operator                            | code | registration | F cat. | remarks   |
|------|-------------------------------------|------|--------------|--------|---|
| 2001 | PERM STATE<br>AIR<br>ENTERPRIS<br>E | PGP  | RA-65775     | 2      | No passenger emergency oxygen system, flight planned at 10.600 meters altitude            |
| 2000 | AIR<br>ENTERPRIS<br>E PULKOVO       | PLK  | RA-65113     | 3      | Flight authorised up to FL250 because of oxygen system                                    |
| 2001 | AIR<br>ENTERPRIS<br>E PULKOVO       | PLK  | RA-65088     | 2      | Passenger safety card shows drop down oxygen system which is not fitted in this aircraft. |
| 2001 | AEROFLOT<br>DON/DONA<br>VIA         | DNV  | RA-65796     | 2      | Insufficient amount of portable oxygen bottles  |
| 2000 | AIR<br>ENTERPRIS<br>E PULKOVO       | PLK  | RA-65113     | 2      | Only five bottles of oxygen for all passengers.   |

# SAFA results: Tu-134

## item B12: Access to emergency exits

| year | operator                      | code | registration | F cat. | remarks   |
|------|-------------------------------|------|--------------|--------|---|
| 2001 | PERM STATE<br>AIR<br>ENTERPR. | PGP  | RA-65775     | 2      | All seat backs foldable to fwd position<br>blocking emergency exits (now only 15<br>passengers)   |
| 2000 | PULKOVO                       | PLK  | RA-65004     | 2      | FRONT OVERWING EXITS BOTH SIDES SEAT<br>BACKS<br>WILL BLOCK EMERGENCY EXIT IF PAX<br>IN SEAT;<br>REAR OVERWING EXITS BOTH SIDES<br>SEATBACKS<br>NOT SECURED AND COULD BLOCK<br>EMERGENCY EXIT |
| 2000 | PULKOVO                       | PLK  | RA-65144     | 2      | Emergency Exit impeded by seats at the 2<br>forward positions / over-wing.  |
| 2000 | PULKOVO                       | PLK  | RA-65113     | 2      | Emergency exits can be blocked by the<br>backrest of the seats (no breakover type<br>seats)   |
| 2002 | PULKOVO                       | PLK  | RA-65109     | 2      | Forward overwing emergency exits are<br>blocked by seat rows  |
| 2001 | PULKOVO                       | PLK  | RA-65088     | 3      | Forward galley area has unrestrained<br>catering equipment in several locations.  |
| 2001 | AEROFLOT<br>DON/DONA<br>VIA   | DNV  | RA-65100     | 2      | Blocked by luggage  |

# SAFA results: Tu-154

| Description                   | Insp. per item (III) | findings (F) |        |        |       | ratio          |      |
|-------------------------------|----------------------|--------------|--------|--------|-------|----------------|------|
|                               |                      | cat. 1       | cat. 2 | cat. 3 | total | F(cat.2+3)/III | rank |
| A03 Equipment                 | 160                  | 10           | 34     | 2      | 46    | 0.225          | 2    |
| A17 Harness                   | 152                  | 11           | 30     | 3      | 44    | 0.217          | 3    |
| B02 Cabin attendant station   | 157                  | 7            | 32     | 2      | 41    | 0.217          | 4    |
| B07 Emergency exit, lighting  | 146                  | 14           | 21     | 5      | 40    | 0.178          | 5    |
| B12 Access to emergency exits | 164                  | 11           | 36     | 4      | 51    | 0.244          | 1    |

# SAFA results: Tu-154

## item B12: Access to emergency exits

| year | operator                   | code | registration | F cat. | remarks   |
|------|----------------------------|------|--------------|--------|---|
| 2001 | AEROFLOT                   | AFL  | RA-85811     | 2      | Passenger seat backs forward of over-wing emergency exits row 16 and 18 are not blocked in upright position.<br>Two seat rows are blocking over-wing exits. |
| 2001 | AIR ENTERPRISE<br>PULKOVO  | PLK  | RA-85769     | 2      | No access to the baggage/cargo compartment from pax cabin   |
| 2002 | AEROFLOT                   | AFL  | RA-85644     | 2      | Access to emergency exits (over the wing) impeded by seats  |
| 2002 | STATE TRANSPORT<br>COMPANY | SDM  | RA-85645     | 2      | Access to emergency exits hampered by folding seat-backs  |
| 2002 | AEROFLOT                   | AFL  | RA-85649     | 2      | Acces to emergency exits impeded by seats   |
| 2002 | UTAR AVIATION, JSC         | TMN  | RA-85820     | 2      | Access to emergency exits hampered by folding seat backs  |
| 2001 | AEROFLOT                   | AFL  | RA-85661     | 2      | EMERGENCY EXITS IN REAR PAX CABIN ARE IMPEDED BY PAX SEATS  |
| 2002 | URAL AIRLINES              | SVR  | RA-85807     | 2      | Acces to emergency exits impeded by seats   |
| 2002 | STATE TRANSPORT<br>COMPANY | SDM  | RA-85645     | 2      | Access to emergency exits impeded by seats  |
| 2002 | KOGALYMAVIA                | KGL  | RA-85787     | 2      | Access to emergency exits hampered by folding seat-back, typical to type.   |



# SAFA results: Tu-154

## item A03: Equipment

| year | operator                            | code | registration | F cat. | remarks   |
|------|-------------------------------------|------|--------------|--------|---|
| 2001 | AEROFLOT -<br>RUSSIAN INT.<br>AIRL. | AFL  | RA-85811     | 2      | CCOC installed instead of GPWS.                   |
| 2002 | AEROFLOT -<br>RUSSIAN INT.<br>AIRL. | AFL  | RA-85644     | 2      | CCOC instead of GPWS                              |
| 2002 | GAZPROMAVIA                         | GZP  | RA-85778     | 3      | NO RVSM OPERATION                                 |
| 2002 | AEROFLOT -<br>RUSSIAN INT.<br>AIRL. | AFL  | RA-85649     | 2      | SSOS (3-channel) instead of GPWS                  |
| 2001 | AEROFLOT -<br>RUSSIAN INT.<br>AIRL. | AFL  | RA-85661     | 2      | SSOS INSTALLED                                    |
| 2002 | URAL AIRLINES                       | SVR  | RA-85807     | 2      | SSOS (3 channel) instead of GPWS                  |
| 2000 | AEROFLOT -<br>RUSSIAN INT.<br>AIRL. | AFL  | RA-85644     | 2      | GPWS NOT IN ACCORDANCE WITH ANNEX 6               |
| 2002 | GAZPROMAVIA                         | GZP  | RA-95778     | 2      | SSOS: 3 OR 5 CHANNELS COULD NOT<br>CHECKED        |
| 2000 | TATNEFTAERO                         | TNF  | RA-85798     | 2      | SSOS INSTEAD OF GPWS                              |
| 2002 | AVIAENERGO                          | ERG  | RA-85797     | 2      | TCAS INSTALLED BUT NO REFERENCE OF<br>THE VERSION |

# SAFA results: Tu-154

## item A17: Harness

| year | operator                      | code | registration | F cat. | remarks   |
|------|-------------------------------|------|--------------|--------|---|
| 2001 | AEROFLOT                      | AFL  | RA-85811     | 2      | Seat belt instead of harness installed on observers seat.   |
| 2001 | AEROFLOT                      | AFL  | RA-85661     | 2      | NO HARNESES FOR NAVIGATOR AND FLIGHT ENGINEER SEATS   |
| 2002 | AEROFLOT                      | AFL  | RA-85639     | 2      | No shoulder harness for navigator   |
| 2002 | EAST LINE AIRLINES            | ESL  | RA-85689     | 2      | The seats for the navigator and for the flight engineer not equipped with harnesses                                   |
| 2002 | PULKOVO                       | PLK  | RA-85800     | 2      | There are seatbelt instead of harness for the F/E, Operator and C/A seats   |
| 2001 | AEROFLOT - RUSSIAN INT. AIRL. | AFL  | RA-85644     | 2      | Only captains seat is fitted with harness; seatbelts instead of harness are available for the other crew members only |
| 2000 | PULKOVO                       | PLK  | RA-85800     | 2      | No shoulderharnesses for FO and Captain   |
| 2000 | TATNEFTAERO                   | TNF  | RA-85798     | 2      | HARNESS NOT AVAILABLE (COVERED), F/E AND OBS NO SHOULDER HARNESS  |
| 2001 | ENKOR, JSC                    | ENK  | RA-85789     | 2      | Only seat belts for F/E and Nav. seats; there are no harness  |
| 2001 | SIBERIA AIRLINES              | SBI  | RA-85699     | 2      | Harness covered, removed before flight  |



*JAA*

**The end**