

# SAFA

## Safety Assessment of Foreign Aircraft Programme



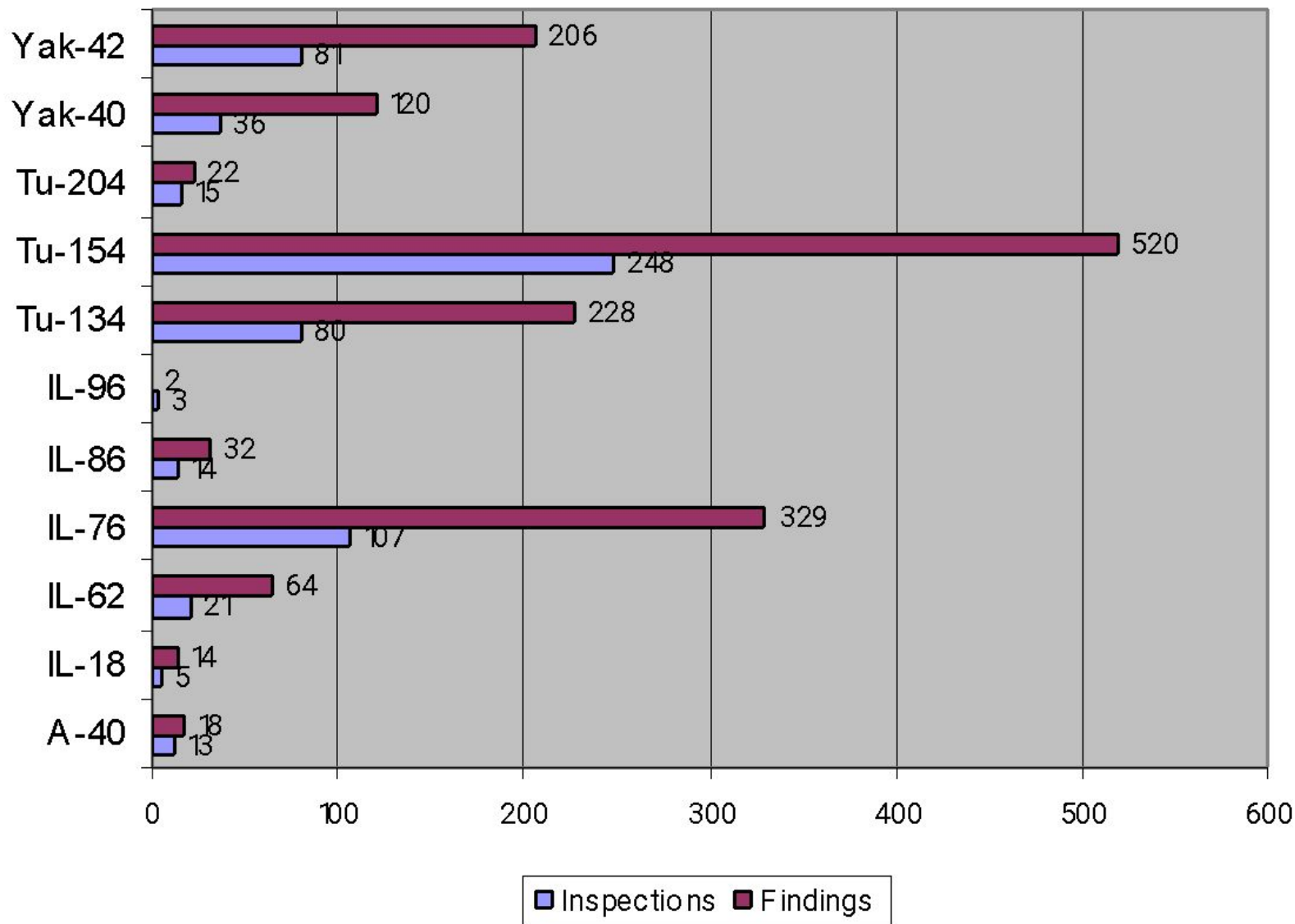
**Wim Ovaa - SAFA Programme Co-ordinator**

# 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          | rank |
|----------------------------------|----------------------|--------------|--------|--------|-------|----------------|------|
|                                  |                      | cat. 1       | cat. 2 | cat. 3 | total | F(cat.2+3)/III |      |
| 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

|  | Insp. per<br>item (III) | findings (F) |        |        |       | ratio          |      |
|--|-------------------------|--------------|--------|--------|-------|----------------|------|
| Description  |                         | 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<br>exit, lighting<br>and marking,<br>torches | 61                      | 1            | 9      | 2      | 12    | 0.180          | 5    |
| B12 Access to<br>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<br>rows ( back rests) |
| 2002 | ENKOR, JOINT STOCK<br>COMPANY | ENK  | RA-42388     | 2      | Overwing emergency exits are blocked by<br>seats.                  |

# SAFA results: IL-76

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

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

# SAFA results: Tu-134

| Description                     | Insp. per item (III) | findings (F) |        |        |       | ratio                    | rank |
|---------------------------------|----------------------|--------------|--------|--------|-------|--------------------------|------|
|                                 |                      | cat. 1       | cat. 2 | cat. 3 | total | $F(\text{cat.2+3})/II_I$ |      |
| 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<br>SEATS<br>ARE NOT EQUIPED WITH<br>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<br>navigator fitted.                                    |
| 2001 | AIR ENTERPRISE<br>PULKOVO | PLK  | RA-65088     | 2      | No shoulder harness for Navigator and<br>Flight Engineer  |
| 2001 | UNKNOWN                   | UN   | RA-65692     | 2      | CREW MEMBERS SEATS HARNESS NOT<br>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<br>EMERGENCY USE (SMOKE PROTECTION NOT<br>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<br>according ICAO annex 6   |
| 2001 | UNKNOWN                                 | UN   | RA-65943     | 3      | THE O2 SYSTEM IS CONNECTED BUT WITHOUT<br>EYES PROTECTION. IT IS NECESSARY TO<br>DISCONNECT THE SYSTEM<br>AND TO CONNECT AN OTHER MASK (OLD<br>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

|                                     | Insp. per<br>item (III) | findings (F) |        |        |       | ratio          |      |
|-------------------------------------|-------------------------|--------------|--------|--------|-------|----------------|------|
| Description                         |                         | cat. 1       | cat. 2 | cat. 3 | total | F(cat.2+3)/III | rank |
| A03<br>Equipment                    | 160                     | 10           | 34     | 2      | 46    | 0.225          | 2    |
| A17 Harness                         | 152                     | 11           | 30     | 3      | 44    | 0.217          | 3    |
| B02 Cabin<br>attendant<br>station   | 157                     | 7            | 32     | 2      | 41    | 0.217          | 4    |
| B07<br>Emergency<br>exit, lighting  | 146                     | 14           | 21     | 5      | 40    | 0.178          | 5    |
| B12 Access to<br>emergency<br>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;thwere are no harness  |
| 2001 | SIBERIA AIRLINES              | SBI  | RA-85699     | 2      | Harness covered, removed before flight  |



*JAA*

**The end**

SCAAR -