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DIRECTORATE LEGAL AFFAIRS

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Subject

Regulation by the State Secretary for Transport, Public Works and Water Management providing rules for flying displays (Regulation flying displays)

THE STATE SECRETARY FOR TRANSPORT, PUBLIC WORKS AND WATER MANAGEMENT,

In view of article 158, second paragraph of the Civil Aviation Supervision Order

DECREE:

§ 1. General provisions

Article 1

1. The definitions of the Air Traffic Act and the connected provisions apply to this regulation.
2. In addition, the following definitions apply in this regulation.
 - a. *runway*: a paved or unpaved part of the site where the air display is held, intended for taking off and landing of demonstration aircraft;
 - b. *BVG*: a special rules zone designated by the minister pursuant to article 8 of the air traffic regulations;
 - c. *assessor*: a person appointed by the Dutch Air Display Association who is skilled in performing aerobatic flights;
 - d. *display pilot*: a person admitted to the flying display as display pilot pursuant to article 18, first paragraph;
 - e. *demonstration aircraft*: an aircraft participating in the flying display, subdivided into the following categories:
 - 1°. category A: airplane, glider (sailplane), helicopter, airship;
 - 2°. category B: free balloon;
 - 3°. category C: hangglider, paramotor, paraglider (parasailer), parachute, model aeroplane, kite and small balloon;
 - f. *flypast*: a flight in which a demonstration aircraft flies in a steady and straight line over the display site;
 - g. *AFIS operator (aerodrome flight information service operator)*: a person with a licence as referred to in article 17, paragraph d, of the Decree aviation licences, valid for the flying display;
 - h. *flying display*: an event with one or more demonstration aircraft in the air, organised to provide entertainment to the public, with the exception of:
 - 1°. events that exclusively involve a maximum of five free balloons;
 - 2°. events that exclusively involve the demonstration aircraft hanggliders, paramotors,

paragliders, parachutes, model aeroplanes, kites or small balloons;

3°. events that involve a combination of the demonstration aircraft referred to under 2°, provided that these are not combined in one item;

l. *minister*: the Minister for transport, public works and water management;

j. *obstacle*: a movable or immovable object, temporary or permanent, or part of it, that forms a hindrance to aviation, in an area intended for movements of an aircraft on the ground or that protrudes above a defined plane for protection of an aircraft in its flight;

k. *item*: a separate part of the display programme involving one demonstration aircraft or more demonstration aircraft that perform simultaneously, while the display pilots have mutually made arrangements on the performance of the item;

l. *organiser*: the natural person or legal person who is holder of the permit;

m. *local flight*: every flight that leaves from or arrives at the display site and that is not part of the flying display;

n. *crowd area*: the area, including the parking area, reserved for the public;

o. *crowd line*: the front edge of the areas that are accessible to the public for which the flying display or an item of the flying display takes place;

p. *licence*: the licence issued by the minister as referred to in article 17 of the Aviation Act;

q. *flying display director*: the person charged by the organiser with the management and safe realisation of the flying display;

r. *display area*: the airspace within which the flying display takes place;

s. *display authorisation*: written statement of skill for flying during flying displays;

t. *display line*: a line indicating how far a demonstration aircraft may approach the crowd line;

u. *display programme*: the composition of items of the flying display;

v. *display site*: the water or land area above which the flying display mainly takes place;

w. *display flight*: every flight with a demonstration aircraft carried out within the framework of a flying display.

3. Flying display also includes a flying competition, organised to provide entertainment to the public.

4. For the application of this regulation, an aviation competition as referred to in the third paragraph includes every item carried out within the display area with one or more demonstration aircraft in the air for determining or comparing the performance, either of the display pilots or of the demonstration aircraft.

Article 2

This regulation does not apply to military display pilots and military demonstration aircraft.

Article 3

1. If at a flying display for which the minister issues the licence, military display pilots or military demonstration aircraft are involved, the decision on the licence is taken in consultation with the Minister of Defence.

2. With the exception of articles 32 up to and including 36, and 39, this regulation does not apply to a display pilot in a flying display for which the licence is issued by the Minister of Defence.

§ 2. Location of a flying display

Article 4

The minister may issue a licence for holding a flying display at an aerodrome designated pursuant to article 18 of the Aviation Act, if Air Traffic Control during the flying display is arranged by one of the government bodies referred to in article 5.13 or 5.14 of the Air Traffic Act.

Article 5

1. The minister may issue a licence for holding a flying display at an aerodrome designated pursuant to article 18 of the Aviation Act, if the following conditions are complied with:

- a. demonstration aircraft approach and leave the display area exclusively according to a predefined procedure, and
- b. an AFIS operator is present.

2. The first paragraph does not apply to flying displays in which only free balloons take part.

Article 6

1. The minister may issue a licence for holding a flying display at a site, not being an aerodrome, for which pursuant to article 14, second paragraph under b, of the Aviation Act exemption has been granted if the following conditions are complied with:

a. the size of the display area, measured from the centre of and parallel to the display line as well as measured from the display line in the direction of the area where no public is present, is laid down in the licence on the basis of table 1 of the schedule to this regulation;

b. on determining the display area, the flying display director determines whether land lies within it that is used for:

- 1°. aerodromes,
- 2°. protected natural reserves,
- 3°. bird concentration areas as published in the Aeronautical Information Publication, referred to in article 60, part a under 1, of the Air Traffic Regulations,
- 4°. chemical industries,
- 5°. nuclear power plants,
- 6°. railway yards,
- 7°. fuel storage facilities,
- 8°. continuous built-up areas;

c. if within the display area there are lands as referred to under b, or obstacles with a vertical height of at least 45 metres, the flying display director indicates what measures must be taken with respect to those lands or those obstacles in connection with a safe performance of the flying display.

2. The licence referred to in the first paragraph is issued under at least the following conditions:

- a. at the display site there is a runway which:
 - 1°. satisfies the dimensions referred to in table 1 of the schedule to this regulation,
 - 2°. has sufficient bearing strength for the demonstration aircraft to be used, and
 - 3°. bears marks suitable for this purpose;
- b. near the runway the wind direction is indicated by means of a windsock or similar provision during use;
- c. at simultaneous use for taxiing and starting or landing at the display site, the distance between the centre line of the taxiway and the centre line of the runway is at least 37.5 metres,

while the waiting point for the runway is at least 30 metres from the centre line of the runway. Depending on the dimensions of the largest demonstration aircraft, further conditions may be imposed;

d. in the approach sector and the exit sector of the runway no obstacles protrude through the notional plane that rises with the short side of the obstacle-free strip as basis, at an angle of 1:20 (height:distance) and a divergence of 10% up to a distance of 300 metres. On either side of the runway and of the approach and exit sectors no obstacles protrude through a notional plane at an angle of 1:5 (height:distance) up to a distance of 75 metres;

e. demonstration aircraft approach and leave the display area exclusively according to a predefined procedure;

f. an AFIS operator is present;

3. Articles 4, 5, 6, 11, 12, 13, 15, 16, 18, 19, and 26a of the general airport regulations apply accordingly with regard to the display site.

4. If the display site is not used for taking off or landing, the applicant must demonstrate that the site satisfies the dimensions referred to in table 1 of the schedule to this regulation for the demonstration aircraft to be used and that it is free of obstacles. In that case the display site does not have to be suitable for landing.

5. The first up to and including the fourth paragraphs do not apply to flying displays in which only free balloons take part.

Article 7

1. The minister may issue a licence for holding a flying display over a water or land area where the display site is not used for taking off and landing, if the conditions referred to in article 6, first paragraph under a up to and including c, and second paragraph under e and f, are complied with.
2. In deviation of the first paragraph, a seaplane can use a water area to take off and land.

Article 8

1. The minister may issue a licence for a period not exceeding one year if the display programme consists of one standardised item.
2. Every time at least one week before a flying display is held, the holder of a licence issued pursuant to the first paragraph must submit to the minister the documents referred to in article 158, first paragraph under a and c of the Civil Aviation Supervision Order.
3. Article 9, fifth paragraph does not apply.

§ 3. Organisation of a flying display

Article 9

1. For every flying display the organiser of the flying display appoints a flying display director.
2. The flying display director referred to in the first paragraph has the required experience matching the category in which the flying display in question is classified according to table 2 of the schedule to this regulation.
3. If the organiser appoints a flying display director who at previous flying displays has demonstrably carried out acts in violation of the provisions of paragraph 4 that are considered an offence in article 39, the minister may decide to refuse a licence.

4. If during three calendar years the flying display director has not been charged with leading a flying display in the highest category listed in table 2 of the schedule to this regulation for which he had the required experience, he will be classified one degree lower.

5. The flying display director is not simultaneously display pilot in the flying display for which he has been appointed pursuant to the first paragraph.

Article 10

The organiser has to take out a third-party liability insurance for holding a flying display.

Article 11

1. In special cases it may be included in the licence for a flying display that the flying display director has to appoint a safety committee.

2. The safety committee consists of at least two members with demonstrable relevant experience to be able to assess the various items of the display programme.

3. The safety committee advises the flying display director on request and unsolicited as regards safety aspects in the preparation and performance of a flying display.

4. If a safety committee has been set up, the report referred to in article 29 must also be signed by the chairman of the safety committee.

§ 4. Obligations for the flying display director

Article 12

The flying display director must at least take into account on determining the crowd area, the crowd line, the display line, the display site and the display area:

- a. the proximity of aerodromes, aviation locations or other events in the air;
- b. urban areas;
- c. the classification of the airspace pursuant to the aviation maps issued by Dutch Air Traffic Control;
- d. the conditions and dimensions of the part of the display site that will be used when demonstration aircraft are taking off from or landing on the display site, and
- e. access to the display site, in particular for emergency services vehicles.

Article 13

The flying display director must ensure that:

- a. the crowd areas remain limited to one side of the display site and that these are not located under the approach and exit sectors of the display site;
- b. prior to and during the demonstration flights adequate barriers are placed to prevent the public from gaining access to the display site;
- c. only authorised people are admitted to the display site and the areas designated for refuelling and loading demonstration aircraft;
- d. spectators are only permitted to the crowd area;
- e. when being refuelled, demonstration aircraft and other equipment are at least 15 metres removed from the public. If balloons, airships or balloons cylinders are being filled with hydrogen gas, this distance increases to at least 40 metres;
- f. the display line can be recognised from the air.

Article 14

The flying display director must ensure that:

- a. emergency services are available, and
- b. a plan for emergency situations is available and known to the emergency services referred to under a, geared to the flying display and the participating demonstration aircraft.

Article 15

The flying display director must ensure that:

- a. a central communication post has been set up, providing connections to at least the flying display director and, in so far as applicable, the air traffic controller or the AFIS operator;
- b. he can be reached by all bodies involved in the flying display;
- c. an adequate public address system is available to address the public;
- d. if a flying display is held pursuant to a licence on the basis of article 5, respectively article 6, an aviation ground station respectively a mobile surface station is available for the AFIS operator.

Article 16

The flying display director must ensure that:

- a. a display programme is composed specifically geared to the location of the flying display;
- b. the items of the display programme will remain separated at all times during the flying display.

Article 17

1. The flying display director attunes the display flights and local flights with, in so far as applicable, the local Air Traffic Control Service, the AFIS operator and the airport manager.
2. The flying display director ensures that local flights and demonstration flights do not take place simultaneously within the display area.

Article 18

1. The flying display director will only admit as display pilots in a flying display a person who has a valid display authorisation issued by the Dutch Air Display Association pursuant to the requirements of table 3 of the schedule to this regulation, or a licence that can be considered equivalent, issued by the competent authority of a State or an organisation recognised by that authority.
2. The flying display director may demand from a person about whom there is doubt as to about the required skill to carry out his item safely, that this person demonstrates his item before an assessor.

Article 19

The flying display director must ensure that exclusively:

- a. display pilots and demonstration aircraft are admitted to the flying display that are stated in the display programming or display pilots or demonstration aircraft of equivalent type and quality for replacement of those;
- b. the display programme is carried out, except in special circumstances that make it necessary for the flying display director to modify the display programme or to cancel items of it provided that a safe realisation of the flying display remains guaranteed.

Article 20

1. The flying display director compiles a written instruction that will be sent at such a time to the display pilots that they can properly take note of it. This written instruction contains at least:
 - a. the place, the date, the time and the duration of the flying display;
 - b. the display programme;
 - c. the time of personal instruction(s);
 - d. a map of the location indicating the location of the crowd line, the display line, the display site, the display area, the waiting areas and the BVG (special rules zone), in so far as applicable;
 - e. information regarding:
 - 1°. arrival and departure of the display pilots,
 - 2°. relevant radio frequency or frequencies,
 - 3°. procedures during the flying display,
 - 4°. any particulars relevant to the flying display;
 - f. the local flights, and
 - g. procedures for handling the demonstration aircraft on the ground, taxiing, parking and refuelling, only if these are different than usual.
2. The flying display director has a copy of the licence for inspection by the display pilots.
3. The flying display director ensures that on every day of the flying display for realisation of the items under his supervision a personal instruction is giving to the display pilots, covering among other things the most recent information. This personal instruction must cover at least:
 - a. section 5 of this regulation;
 - b. the local flights;
 - c. the weather conditions, current as well as expected for the duration of the display;
 - d. a detailed display programme including the radio call signs and flight activities before and after the flying display;
 - e. information regarding:
 - 1°. the radio frequency or frequencies to be used during the flying display,
 - 2°. procedures during the flying display, and
 - 3°. any particulars relevant to the flying display;
 - f. the location of the crowd line, the display line, the display site, the display area, the waiting areas and the BVG (special rules zone), in so far as applicable.

Article 21

1. The flying display director allows demonstration flights to take place under weather conditions equal to or more favourable than the minimum weather conditions stated in table 4 of the schedule to this regulation. If more restrictive requirements as regards the weather conditions have been imposed on the basis of the air traffic service class pursuant to article 18 of the Regulation air traffic services, for the location or in the designation of a special rules zone, then those apply instead of table 4 of the schedule to this regulation.
2. The flying display director ensures that prior to and during the flying display allowance is made for meteorological variables, including at least wind and precipitation.

Article 22

If category A demonstration aircraft are used to carry out flypasts and aerobatic flights, the flying display director ensures that:

- a. the minimum separation distances between the display line and the crowd line referred to in table 5 of the schedule to this regulation, are observed;
- b. the centre line of the runway is at least 75 metres away from the crowd line, and
- c. the distance between any part of a taxiing demonstration aircraft and the public is 15 metres plus half the wingspan or half the rotor diameter.

Article 23

1. If category B demonstration aircraft are used, the flying display director ensures that:
 - a. the minimum separation criteria referred to in table 6 of the schedule to this regulation between the crowd line and any part of demonstration aircraft or their anchoring points are observed;
 - b. balloon trips are separated sufficiently in location or time from other flying activities;
 - c. no more than 35 of these demonstration aircraft take off simultaneously;
 - d. per 24 hours no more than 70 of these demonstration aircraft take off.
2. In deviation of article 13 under c and d, crew members and passengers of these demonstration aircraft are permitted on the display site.

Article 24

1. If an item includes parachute jumping, that item takes place in accordance with the Regulation parachute jumping, with the understanding that the flying display director ensures that:
 - a. the landing site is at least 15 metres removed from the crowd line;
 - b. the landing site is marked in such a manner that it is clearly recognisable for every parachutist from the height of which jumping takes place;
 - c. radio contact is maintained with the aircraft from which jumping takes place, and
 - d. jumping does not take place before he has given permission.
2. The flying display director ensures that of the demonstration aircraft on the ground no propellers, jet engines or rotor blades are rotating or switched on within 250 metres from the target area, as long as a parachutist is making his descent.
3. If flights with model aeroplanes take place, the flying display director ensures that:
 - a. these take place in accordance with the Regulation model aeroplanes;
 - b. no flights are made with model aeroplanes that cannot be steered;
 - c. transmitters and frequencies are used correctly.
4. If flights with hanggliders are being carried out, the flying display director ensures that these take place in accordance with the Regulation hanggliders.
5. If kites and small balloons are launched, the flying display director ensures that these are launched in accordance with the Regulation kites and small balloons.

Article 25

The flying display director must ensure that:

- a. when launching a paraglider or a hangglider using a winch installation in all events the separating distances are observed between the public and the winch installation, the winch cable and the paragliders or hanggliders;
- b. taking off and launching paragliders or hanggliders using a winch takes place in such a manner that the winch cable does not fall into the crowd area;
- c. the paragliders or hanggliders do not fly over the public and do not land among the crowd;
- d. the minimum distance between the public on one side and on the other side paragliders, hanggliders, tow cable, winch or paid out winch cable is at least 30 metres.

Article 26

The flying display director ensures that the display pilot complies with section 5 of this regulation.

Article 27

If a safety committee has been appointed, the flying display director takes the recommendations of the committee into account.

Article 28

The flying display director can be reached and called up until one hour after performance of the last item.

Article 29

Within thirty days after a flying display has been held, the flying display director submits a report about the display to the minister. The report contains in particular any deviations compared to the licence and this regulation during the flying display.

§ 5. Obligations for the display pilot

Article 30

1. A display pilot does not perform a demonstration flight if he has not received personal instructions as referred to in article 20, third paragraph.
2. A display pilot who is not capable of complying with the first paragraph, must get in touch with the flying display director before the start of the flying display in order to receive the personal instruction as referred to in article 20, third paragraph.

Article 31

If an AFIS operator is present at the flying display, it is mandatory for the display pilot to:

- a. get in touch with the AFIS operator before the start of his item to be informed about the correctness of the time of his demonstration flight and about the situation in the display area;
- b. before the start of his item continuously listen at the designated radiofrequency or frequencies and to make a two-sided radio connection with the AFIS operator;
- c. take such action on the basis of the information obtained from the AFIS operator that when performing his demonstration flight no danger is caused or may be caused for persons or things;
- d. inform the AFIS operator about the completion of the performance of his demonstration flight.

Article 32

1. The display pilot ensures that, apart from crewmembers who are essential for the demonstration flight, no other persons are on board of a demonstration aircraft.
2. The first paragraph does not apply to a demonstration flight with a balloon or parachute.
3. The first paragraph does not apply to persons who are on board the demonstration aircraft in order to gain experience as display pilot, under the condition that the flying display director has indicated this when applying for the licence.

Article 33

The display pilot does not fly the demonstration aircraft over the crowd area unless it involves:

- a. kites;
- b. parachutes, where they do not fly lower than 15 metres above a crowd area;
- c. an aircraft that has a group of parachutists on board and is in the process of getting to the position for dropping the group, but not lower than 450 metres above the ground;
- d. Free balloons, but not lower than the heights referred to in table 6 of the schedule to this regulation.

Article 34

1. The display pilot with a category A demonstration aircraft, hangglider or paraglider ensures that as regards the demonstration flight:

- a. the display line and minimum separation distances referred to in table 5 of the schedule to this regulation are observed;
- b. the defined minimum flight altitude is observed;
- c. the performance of the item does not start until the defined minimum flight altitude and minimum separation distances as referred to in table 5 of the schedule to this regulation are observed;
- d. manoeuvres are carried out in such a manner that the display line is not crossed;
- e. no converging flights are carried out in the direction of the display line;
- f. in an air traffic services area class C up to and including G no flights are made at a speed higher than 250 knots, unless a higher speed has been laid down in the licence or the designation of a BVG (special rules zone)
- g. The minimum Visual Meteorological Conditions as laid down in table 4 of the schedule to this regulation, are observed without prejudice to the provisions of article 20.

2. The first paragraph under a and b does not apply if:

- a. after take-off the demonstration aircraft turns away from the public in order to be manoeuvred to the display line and the minimum altitude;
- b. after completing their display the demonstration aircraft is directed to the runway and the centre line of the runway is not crossed into the direction of the public.

Article 35

A display pilot with a demonstration aircraft on the ground that is provided with propellers, jet engines or rotors, must ensure that these are stopped if:

- a. located within 250 metres of the target area of a parachutist during the latter's demonstration, and
- b. a parachutist flows into the direction of his aircraft.

Article 36

1. The display pilot who uses a parachute ensures that the main parachute has fully opened at an altitude of at least 450 metres above the ground. The reserve parachute is not used unless in the event of an emergency.

2. The display pilot ensures that if he flies a hangglider, paramotor or paraglider, the aircraft does not violate the separating distance that is at least equal to the length of the paid out cable between a winch installation or other auxiliary appliance, while the horizontal distance must not be less than 30 metres.

§ 6. AFIS operator

Article 37

The AFIS operator has the required experience matching the category in which the flying display in question is classified according to table 2 of the schedule to this regulation.

Article 38

In the framework of the flying display, the AFIS operator provides the display pilot with information about:

- a. air traffic activities at the display site, the display area and designated special rules zone, if applicable;
- b. the exact time of departure of a demonstration flight in the framework of an item of the display programme, as well as the situation in the display area immediately preceding the performance of an item;
- c. pursuant to article 19 under b, modifications by the flying display director to the departure time of a demonstration flight in the framework of an item of the display programme;
- d. any unexpected events on the ground or in the air that may be relevant for a safe performance of an item;
- e. instructions by the flying display director in the framework of the flying display.

§ 7. Miscellaneous provisions

Article 39

Violation of articles 9, fifth paragraph, 13, under a up to and including e, 16, under b, 17, second paragraph, 18, first paragraph, 19, 20, first and third paragraph, 21 up to and including 26, 28 and 30 up to and including 38 are considered an offence.

Article 40

This regulation will take effect on the second day after the date of the Netherlands Government Gazette in which it is published.

Article 41

This regulation can be cited as: Regulation flying displays.

This regulation with explanation will be published in the Netherlands Government Gazette.

The State Secretary for Transport, Public Works and Water Management,

mw drs M.H. Schultz van Haegen

Explanation

1. Introduction

Flying displays form a spectacular aspect of aviation. With a view to reaching the maximum possible risk limitation for those handling the demonstration aircraft as well as for the public and third parties on the ground, such a flying display must be performed with the necessary precautions. This regulation provides for that by imposing requirements regarding the location and organisation of a flying display. In addition, the regulation lays down obligations for the flying display director and the display pilots in a flying display. Finally, the role of the AFIS operator at a flying display has been implemented.

2. Locations for flying displays.

The location of a flying display is of major importance with regard to limiting the risk. This regulation lays down requirements for the locations and the conditions under which flying displays can be held there. These requirements must be complied with in order to obtain a licence for organising a flying display. A distinction is made between issuing licences for a flying display:

- A. at a designated aerodrome with or without air-traffic control;
- B. at a site not being an aerodrome;
- C. over water or land surfaces where no taking off or landing takes place on those surfaces.

Starting point is that flying displays can be held at designated aerodromes if Air Traffic Control is provided (article 4). Under certain conditions flying displays are possible at designated aerodromes where no Air Traffic Control is provided (article 5). In addition, under more stringent conditions flying displays can be held at a site which is not an aerodrome (article 6). Finally, under conditions flying displays can be permitted on locations over water surfaces or over land where no taking off or landing takes place (article 7).

Further to a. Flying display at a designated aerodrome.

Designated aerodromes have the necessary infrastructure as standard and they have fixed protocols with regard to measures in the event of emergencies geared for the flying display, which are exercised regularly. A designated aerodrome has been mapped out fully, complete with the surroundings to a radius of some six kilometres around the site. Any obstacles and industries within this area are known and there is an insight into the risks these obstacles and industries entail. In addition, designation of an aerodrome guarantees such use of space that a free area is available that is not accessible to the public. A display will take place above this free space.

If an air traffic controller is available who can separate the air traffic and issue instructions to the display pilots, a flying display at a designated aerodrome is possible for which hardly any limitations have to be imposed. For a flying display at a designated aerodrome without Air Traffic Control, article 5 of the regulation lays down additional requirements as regards a safe performance of a flying display.

Further to b. Flying display at a site not being an aerodrome.

A flying display at a site not being an aerodrome: (below: non-aerodrome) is considered acceptable if another number of stringent requirements as laid down in article 6 have been

complied with. This is connected with the choice of location as well as the absence of Air Traffic Control at a flying display. Directly related are the limiting conditions contained in article 6. Those all aim at limiting the risks that may be connected with a flying display.

That is because a non-aerodrome (unlike a designated aerodrome) does not by definition have a use of space with a guaranteed free space. If a display is held at such a site, a once-only separation will be placed between the aircraft and the public at the (rather limited) display site itself, but this separation will not extend outside the display site. In addition, there is no insight whether just outside the display site itself, so in places where aircraft will fly over, in some cases even at locations within the display site, there are no unknown obstacles or hazardous industries. For that reason, article 6, first paragraph lays down that the display area is not only determined on the basis of table 1 of the schedule, but that also the area has to be mapped out with regard to certain types of land use and obstacles higher than 45 metres, while the flying display director has to indicate what measures he has taken to guarantee a safe performance of the flying display.

Further to C. Flying display over water or land surfaces

A flying display over water or land surfaces where no taking off or landing takes place, will have to comply with the requirements as regards the layout of the display area as laid down in article 6, first paragraph under a up to and including c, and second paragraph under e and f. A water location has a natural separation between the public and the display pilots in the flying display. In addition, the waterline and the display line are easily recognisable and clear identification points for the display pilots for the purpose of navigation. From the beach or the seawall this display is easy to see, among other things because there are no trees or buildings that hinder the view. The chance that something happens past the display line – a line that indicates how far demonstration aircraft may approach the crowd line – into the direction of the public, is very low. In addition, on or over sea and large water surfaces there are hardly any risk-increasing obstacles for the flying displays. Moreover, over sea there is a large area where aircraft can regroup, without causing risks or nuisance for third parties. In addition, all demonstration aircraft have to fly in and out and no landings are allowed on the beach. Water landings by seaplanes are allowed.

3. Organisation of a flying display and obligations for flying display director and display pilot

Sections 3 up to and including 5 of these regulations contain provisions in connection with the organisation of a flying display and obligations for the flying display director and the display pilot. The provisions of sections 3 up to and including 5 refer to conditions that have to be complied with when using the licence for the flying display. Those provisions are mainly based on the conditions that used to be connected to licences for flying displays. The provisions have been derived from guidelines defined at international letters such as the Information Leaflet no. 5 (The Organisation and Conduct of Flying Displays) by the Joint Aviation Authorities and the British CAP 403 (Flying Displays and Special Events: A Guide to Safety and Administrative Arrangements). The organiser of a flying display does not necessarily have to have affinity with aviation. Also for that reason section 3 of this regulation lays down that the organiser appoints a person charged on behalf of him with management and safe performance of a flying display for which a licence has been issued: the flying display director. The flying display director holds the central position at a flying display. Section 4 of this regulation lays down the responsibilities of the

flying display director. In addition, section 5 lays down obligations for display pilots referring to the performance of an item with a specific demonstration aircraft.

4. AFIS operator

At flying displays it is important that specific information is supplied to the display pilots on the conditions relevant to the performance of their demonstration. Important information for the display pilot includes the correct moment of the item and the absence or presence of other air traffic in the display area. An AFIS operator can provide this information. His tasks have been laid down in section 6 of this regulation. Where an air traffic controller actively takes control by separating the traffic and giving instructions to the display pilots about the moment and sequence of performing, an AFIS operator has a more passive function during a flying display. After all, an AFIS operator does not have the authority to separate traffic and to give instructions and clearings. A special rules zone (BVG) may be designated for a flying display in which the demonstrations will take place. It is the responsibility of the flying display director of a flying display to compose the display programme in such a manner that the various items succeed each other in a responsible manner. It is the task of the AFIS operator to provide information on the exact time of departure of every item of the display programme, as well as on the situation in the display area immediately preceding the performance of an item (see article 37). Conversely, it is the duty of the display pilot prior to starting his demonstration to contact the AFIS operator to be informed about the moment at which his item has been scheduled and about the situation in the display area (see article 30). Then the display pilot will be able to perform his item, observing the prescribed procedures for approaching and leaving the display area. In addition, it is important that the display pilot informs the AFIS operator about changes in and completion of the performance of his display flight. In the event of unforeseen circumstances that may affect the safety of the air display, the AFIS operator may provide information on the subject. It is the responsibility of the display pilot and the flying display director to take adequate action. Though not competent, in special circumstances - for instance when an aircraft flies into the display area during the performance of an item - the AFIS operator will have to instruct the display pilot in order to guarantee the safety of the flying display. In addition, the AFIS operator must relay to the display pilots all instructions he receives from the flying display director. It should be stressed that the AFIS operator has no interference whatsoever with the way the display flight is conducted. When the AFIS operator has provided the necessary information that is important to the display pilot for the commencement of his display flight, the further execution of the display flight is fully in the hands of the display pilot, while it should be noted that at all times the display pilot is primarily responsible for the performance of his flight.

5. Realisation of the regulation

This regulation has been prepared in a broadly composed interdepartmental study group consisting of: the Directorate Legal Affairs of the Ministry of Transport, Public Works and Water Management, the Aviation Division of the inspection Transport, Public Works and Water Management, the Royal Air Force, the Royal Navy, the Ministry of Defence, Air Traffic Control the Netherlands, the Public Prosecutor (OM), the National Police Agency, the Police Aviation Service. The flying display sector has been given the opportunity to comment on the draft regulation. The Platform Dutch Aviation (PNL) has made such a contribution on behalf of the flying display sector. The knowledge and expertise of the representatives of the organisers, flying display pilots and flying display directors has been well appreciated and found very useful. It is the intention to assess the current regulation for its operation and usefulness after two years

6. Articles

Article 2

On the basis of article 2 of the Civil Aviation Supervision Order (R.T.L.) the provisions of the R.T.L. do not apply to military aircraft, members of the crew, passengers and cargo of these aircraft as well as to military aerodromes. At a flying display for which a licence is issued pursuant to article 158 R.T.L, the provisions of the R.T.L. as regards the group exempted by article 2 R.T.L. do not apply either. Consequently, article 2 of this regulation exempts military display pilots and military demonstration aircraft.

Article 3

The first section provides for the event that military display pilots or military demonstration aircraft take part in a civil flying display. Then arrangements will be made between the Minister of Transport, Public Works and Water Management and the Minister of Defence after which it is laid down in the licence what rules are prescribed by the Minister of Defence as regards the military display pilots or military demonstration aircraft. As regards a flying display for which a licence has been issued by the Minister of Defence and which in addition to military personnel civilians take part, the second paragraph prescribes that articles 32 up to and including 36 and 39 of this regulation apply to them. These articles refer to the obligations of a display pilot. This provision guarantees that also for a military flying display the above rules apply to the civilian participants in such a flying display.

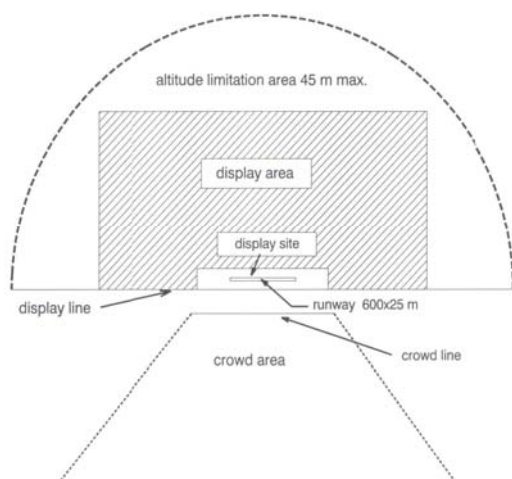
Article 4

For designated aerodromes (with the exception of sites that are exclusively laid out for the use of helicopters) the fire fighting regulations civilian aerodromes applies, laying down specific requirements for the fire department on site. On that basis aerodromes are equipped as standard with a variety of provisions for risks management in the event of possible unexpected events and disasters. In addition, municipalities in which a designated aerodrome lies are under an obligation to have an emergency plan that is (also) geared to the aerodrome in question. This means that at displays at aerodromes always an aviation-gearred emergency plan is available. As standard those municipalities also have disaster control officers available who are skilled in fighting aviation-related disasters. In addition, a designated aerodrome has a meteorological service available as standard. Such a service can at very short notice provide information on weather conditions that may have an influence on safety during a flying display. Similar provisions are not available at a non-designated aerodrome.

Article 5

If one of the organisations referred to in article 4 does not provide Air Traffic Control, then under this regulation still a flying display can be held at the designated aerodrome, provided that the requirement is complied with that a procedure is laid down for approaching and leaving the display area by demonstration aircraft and that an AFIS operator is available. Compliance with this procedure compensates the absence of Air Traffic Control.

Article 6



This drawing provides a visualisation of an area above and within which a flying display takes place. Table 1 of the regulation indicates the minimum dimensions of the required airspace for demonstration aircraft in relation to their velocity and the type of display. In order to maximally guarantee the safety of the display pilots as well as the people and things on the ground, the calculations of dimensions and heights have been based in so far as possible on the guidelines and recommendations

(for instance of the Aerodrome design manual) of Annex 14 to the ICAO Convention. The display line is the line indicating how far a demonstration aircraft may approach the crowd line. In many cases this is also the line used to position the demonstration aircraft for the demonstration. This means that an aircraft can fly to a minimum altitude above it, in order to be in the correct position for the demonstration over the display site. If the display site is not used for landing, the display site must contain a protected area, free of obstacles, where propelled demonstration aircraft can make an emergency landing in case of emergency without endangering the public. The dimensions of the display site depend on the demonstration aircraft used, refer to table 1 of the regulation.

If an exemption is granted of article 14 of the Aviation Act and landing actually takes place, the runway must comply with the dimensions referred to in table 1. There must be no obstacles in this area and, in addition, there must be no obstacles that protrude through a notional plane of the approach and exit sector that increases at an angle of 1:20 (height:distance). On either side of the runway and of the approach and exit sectors no obstacles may protrude through a notional plane at an angle of 1:5 (height:distance) up to a distance of 75 metres. In the drawing this has been integrated in the display site. The dimensions of the display area have been based on the space the demonstration aircraft would need on an average at normal operations according to the flight manual to fly from 150 metres to 60 metres and vice versa. In addition, the space required for flying a regular circuit for landing and taking off is important. This is also the area where aircraft fly lower than the minimum altitude and where aerobatic flights are performed. In view of the vulnerable character, the increased risk as a result of the presence of substances that are considered hazardous and because it is not advisable to fly over certain built-up areas, basically the display area should not contain any areas with a land use referred to in article 6, first paragraph under b. The flying display director must inform the minister of the land use referred to

in article 6, first paragraph under b, when applying for the licence, indicating what measures will be taken to protect those areas. In addition, an area is defined by a semicircle within which, with the exception of the display site, obstacles of 45 metres or higher must be traced, so that, if necessary certain conditions can be imposed (installing obstacle lighting, specific briefing etc.) A semicircle has been opted for because it is not allowed to fly over the crowd and the exemption of the minimum altitude is mainly used in the display area. If one or more items should be positioned behind or next to the crowd area, display pilots are expected to observe the usual minimum altitude in so far as possible and take into account obstacles as in a regular flight.

Article 8

In connection with the time needed to process the application of a licence for a flying display in view of the high costs for regularly issuing the same licence, this article lays down that an annual licence can be issued. The main target group in mind consists of people or companies that regularly perform a display programme with exclusively a standardised item. When organising a flying display on the basis of this article, all relevant applicable provisions of this regulation will have to be complied with.

Article 9

The responsibilities of the flying display director are expressed in the provisions contained in section 4. Before the organiser can appoint a person as such, it must consequently be determined in an objective manner whether the person, dependent on the nature and scope of the display to be organised, can be considered an expert in that matter. That expertise results from and is determined by the degree of experience. Therefore, table 2 lays down minimum experience requirements for the flying display director. This provision and the provisions contained in section 4 refer to conditions for the use of the licence.

Article 10

Despite all measures to limit the risks at a flying display, it is not inconceivable that damage occurs. For that reason it is important that there is insurance for the flying display. As the organiser is holder of the licence to organise a flying display, it seems reasonable to make the organiser responsible for insurance. This is without prejudice to the fact that in the event of liability the organiser, flying display director and display pilot, and possibly other parties can mutually lay claims.

Article 11

For the assessment whether a safety committee has to be set up, aspects to be considered include the nature, the scope any intensity of the flying display or any item of it, as well as the location of the flying display. It will be reasonable that in such a situation it is included in the licence that the flying display director has to appoint a safety committee. The flying display director will have to appoint only people with relevant expertise in the committee.

Article 14

The contents and scope of an emergency plan for a display must be geared to the nature and scope of the display in view of the demonstration aircraft involved. As in many cases local emergency services will be called in for any emergency during a display and they too have the

necessary knowledge and expertise as regards the area or the organisation of major events, the emergency plan must be developed in consultation with those emergency services.

The emergency plan indicates how the local authorities and the various emergency services have to operate in the event of an accident or incident with a demonstration aircraft or any other emergency situation. Elements that have to be addressed in the emergency plan include:

- the type of emergency, in the air or on the ground;
- the bodies involved in the plan are described in a schedule with regard to the management and coordinated use of services and organisations involved;
- the responsibilities and tasks of every body;
- a map with coordinates of the display site indicating all the stations of emergency services, access roads and control centres;
- names, references, means of communication and the location of responsible officials;
- an overview of transport roads sufficient to manage the traffic of emergency services simultaneously with the leaving crowd.

Article 16

When the conditions for obtaining a licence have been complied with, that is one of the articles 4, 5, 6, 7 or 8, the conditions for using the licence have to be complied with. This provision is an essential condition for using the licence. A major task of the flying display director is to compose the display programme that is geared to the location of the flying display. Display programmes must be tailor-made for the various locations such as designated aerodromes (with or without Air Traffic Control), non-designated aerodromes and above water surfaces. In addition, the number and type of demonstration aircraft are relevant. Dependent on the number of demonstration aircraft and the mix of types of demonstration aircraft, the flying display director will have to compose a display programme that is geared to the location. Where the display programme makes a separation between the items, it is important that on actual performance this separation is maintained. That is the responsibility of the flying display director.

Article 18

For issuing the display authorisations, self-regulation by the flying display sector has been opted for, partly on the insistence of the Dutch Air Display Association and also because it has not appeared that government interference is required for reasons of safety. The Dutch Air Display Association unites organisers, directors, display pilots and AFIS operators involved in flying displays. In addition, the second subsection creates the possibility to have a person about whom doubts have risen as regards his skill to perform the item in question in a responsible and save manner, demonstrate his item before allowing him to the flying display as display pilot, even if that person possesses a display authorisation.

Article 19

Participation in a flying display is only open to display pilots that have been permitted to the flying display. As in practice it has appeared there may be last-minute programme changes, it is provided under a that substitution may take place of display pilots or demonstration aircraft of similar type and quality. When the display programme has thus been determined, special conditions on the performance may require the flying display director to change the sequence of the display programme or to cancel certain items of it. The flying display director is given the authority to do so under b. Special conditions may include: changes in the weather conditions

and withdrawal of display pilots because of a defective demonstration aircraft. It is not permitted to extend the display programme with a different item.

Article 20

It is highly important to give personal instruction, also referred to as briefing, before the start of every flying display. For that reason article 30 provides that a display pilot is not allowed to perform a display flight if he has not been instructed personally. Every display pilot has to attend every personal instruction (so also for any training flights). The display pilot that only flies in and, consequently, cannot personally attend the briefing, must contact the flying display director prior to his flight in order to be instructed that way.

Article 21

The current weather conditions at the day the flying display is held, are highly important to the progress of the display programme. In addition to the minimum weather conditions laid down in the first paragraph, it is important that the flying display director takes into account the meteorological variables, including at least wind velocity and precipitation. Consequently, the flying display director will have to take adequate measures if the weather conditions are reason for him to do so, in order to guarantee a safe performance of the flying display at all times.

Article 26

In addition to the own responsibility of the display pilot to comply with the obligations imposed upon him, here the responsibility is expressly imposed upon the flying display director as well.

Article 27 and 29

The safety committee has no independent authorities. It is the task of the safety committee to make recommendations to the flying display director, on request or unsolicited. It will be obvious that the flying display director pays attention to the recommendations by the committee. If he deviates from a recommendation by the safety committee, he will have to include that in the report of the flying display, stating sound reasons.

Article 28

The reasoning behind this provision is that after completion of the display programme, various activities will take place at the location of the flying display. There will also be aircraft movement of leaving demonstration aircraft, as well as leaving people and means of transportation. Though the flying display director may have delegated handling this to third parties, with a view to his responsibility the importance is stressed of his presence for some time after completion of the display programme.

Article 30

Presence at the personal instruction is of vital importance for a display pilot in connection with the proper performance of his item. That is because at the personal instruction the display pilot will receive the most recent information that is important for the performance of his item, such as the items that will take place immediately before and after his item. Moreover, the rules applying to the flying display in question will once more be pointed out by the flying display director. In addition, the most current weather conditions will be described, while any forecasts for the duration of the flying display will be discussed.

Article 34

The minimum altitude referred to in this provision, is determined according to the procedure of article 45 of the Air Traffic Regulations. This exemption is granted simultaneously with the licence for the flying display. For flying displays over land or over a water surface it is internationally accepted to observe a minimum altitude of 200 ft (60 m) or 100 ft (30 m) respectively. Because lower values increase the risks for the display pilots, the above values can only be deviated from in very special cases (if the performance of an item of the display programme requires it). If the DA of a display pilot states a specific minimum altitude, that will have to be stated on applying for the licence, so it can be considered in issuing the licence.

Article 37

An AFIS operator must possess a licence valid for the flying display. Pursuant to article 18, third paragraph, introduction to the Decree licences for aviation, the licence is issued while possibly stating a limitation as to subfunction, area or time. Thus it may be possible to issue a licence to an AFIS operator for flying displays all over the Netherlands or only for flying displays at certain locations in the Netherlands.

Article 39

Articles 9, fifth paragraph, 13, under a up to and including e, 16, under b, 17, second paragraph, 18, first paragraph, 19, 20, first and third paragraph, 21 up to and including 26, and 28 refer to a flying display director. Articles 30 up to and including 36 refer to the display pilot. Articles 37 and 38 cover the AFIS operator. These provisions are of essential importance when holding a flying display. If these provisions should not be complied with, the safe performance of the display programme could end up in a critical situation. Though most parties involved are well aware of the importance of compliance with these provisions, it is important for reasons of enforcement to consider violation of those provisions an offence. The basis to do so is offered by article 62, third paragraph of the Aviation Act. In addition, article 17 of the Aviation Act prohibits holding a flying display without having a licence for it. If a flying display is held without having a licence for it, criminal action can be taken pursuant to article 62, first and second paragraph of the Aviation Act where violation of article 17, first and second paragraph of the Aviation Act has been made an offence.

THE STATE SECRETARY FOR TRANSPORT, PUBLIC WORKS AND WATER MANAGEMENT,

mw drs M.H. Schultz van Haegen