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COMMENT ON PROPOSED ESTABLISHMENT OF AN ELECTRICAL POWERLINE FROM THE ESKOM NATIONAL GRID TO THE DE HOOP HOUSING SUBSTATION, ACROSS FARMS RE/1113, ERF 373, ERF 12496 AND FARM RE/15/766, MALMESBURY RD, SWARTLAND MUNICIPALITY

22/11/2023

1. INITIAL NOTICE OF THE PROPOSED ESTABLISHMENT OF AN ELECTRICAL POWERLINE FROM THE ESKOM NATIONL GRID TO DE HOOP HOUSING SUBSTATION, CAPTURED IN THE NEMA PUBLIC PARTICIPATION PROCESS NOTICE DATED 10 NOVEMBER 2022.

- 1.1 Westelike Oesbespuiting (Pty) Ltd ("WPO") is an already registered Interested and Affected Party. WPO made the below submissions, on 12 December 2022, in response to the proposed establishment of an electrical powerline as listed in paragraph 1 above.
- 1.2 WPO hereby requests to be reregistered as an Interested and Affected Party, if necessary.
- 1.3 WPO therefore wishes to have the below submissions considered afresh for the amended proposed establishment of an electrical powerline from Eskom National Grid to De Hoop Housing Substation, applicable to even date.
- 1.4 The submissions and circumstances below are still the current state of affairs, with the addition of the submissions captured in paragraph 5 below.
- 1.5 The amended location of the proposed powerline is still in the same directional vicinity in comparison to the initial location of the proposed powerline.

2. INTRODUCTION

Westelike Oesbespuiting Mpy. (Pty) Ltd ("WPO"), with its principal place of business at Bethlehem Airfield, Preekstoel Road, Bethlehem, is renting Rozenburg Vliegveld (hereinafter "the aerodrome"), from Villa Nova, for purposes of conducting their business of crop spraying, which is an essential service in the agricultural sector of South Africa.



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The proposed powerline will be located in a close vicinity to the aerodrome, from a western to north-western direction to the aerodrome, and directly in the flight path of departing and approaching aircraft.

The location of the proposed powerline has a direct impact on the health and safety of the aircraft, pilots and other personnel at the aerodrome. If approved and the powerline is erected, it will severely affect the ability of WPO to adhere to the Civil Aviation Regulations. In addition, it will also have a severe financial impact on the business of WPO, its clients and the economy, for the reasons below.

3. LEGISLATIVE RESTRICTIONS AND LIMITATIONS IN TERMS OF THE CIVIL AVIATION REGULATIONS 2011, AS ENACTED IN TERMS OF SECTION 155(1) OF THE CIVIL AVIATION ACT 13 OF 2009.

The legislation directly relevant to the effect which the proposed powerline will have on the aviation activities at the aerodrome, are **Part 91.06.32**, **91.01.10**, **139.01.30** and **185.01.2** of the **Civil Aviation Regulations**:

Division Six: Heights and instrument approach and departure procedures

Minimum heights

91.06.32 (1) Except when necessary for taking off, or landing, or except with prior written approval of the Director, no aircraft—

- (a) shall be flown over congested areas or over an obvious open-air assembly of persons at a height less than 1 000 ft above the highest obstacle, within a radius of 2 000 ft from the aircraft;
- (b) when flown elsewhere than specified in paragraph (a), shall be flown at a height less than 500 ft above the ground or water, unless the flight can be made without hazard or nuisance to persons or property on the ground or water and the PIC operates at a height and in a manner that allows safe operation in the event of an engine failure; and
- (c) shall circle over or do repeated overflights over an obvious open-air assembly of persons at a height less than 3 000 ft above the surface.

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- (2) A helicopter shall be permitted to be flown at heights less than those prescribed in sub-regulation (1) (*a*), provided that—
 - (a) the operation is conducted without unnecessary nuisance or hazard to persons and property on the ground or water; and
 - (b) the PIC operates at a height and in a manner that allows safe operation in the event of an engine failure.
- (3) Except when necessary for take-off or landing, or with the express permission of the Director, an aircraft shall at night, in IMC or when operated in accordance with IFR, be flown—
 - (a) at a height of at least 1 000 ft above the highest terrain or obstacle where the height of such terrain or obstacle does not exceed 5 000 ft above sea level within 5 NM of the aircraft in flight; or
 - (b) at a height of at least 2 000 ft above the highest terrain or obstacle located within 5 NM of the aircraft in flight where the height of such terrain or obstacle exceeds 5 000 ft above sea level: Provided that within areas determined by the Director the minimum height may be reduced to 1 000 ft above the highest terrain or obstacle located within 5 NM of the aircraft in flight, and the aircraft is flown in accordance with such procedures as the Director may determine.
- (4) The PIC of an aircraft shall, in addition to the requirements of this regulation, comply with any altitude restrictions prescribed for the area or route to be operated within or over.

Endangering safety

- 91.01.10 (1) No person shall, through any act or omission-
- (a) endanger the safety of an aircraft or person therein; or
- (b) cause or permit an aircraft to endanger the safety of any person or property.

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Obstacle limitations and markings outside aerodrome or heliport

139.01.30 (1) All objects, whether temporary or permanent, which project above the horizontal surface within a specified radius of 8 kilometres as measured from the aerodrome reference point should be marked as specified in Document SA-CATS 139.

- (2) Any other object which projects the horizontal surface beyond these radii or above the conical surface and which constitutes a potential hazard to aircraft must be marked as specified in Document SA-CATS 139.
- (3) Buildings or other objects which will constitute an obstruction or potential hazard to aircraft moving in the navigable air space in the vicinity of an aerodrome, or navigation aid, or which will adversely affect the performance of the radio navigation or instrument lading systems, must not be erected or allowed to come into existence without the prior approval of the Director.
- (4) A building or an object higher than 45 metres above the mean level of a landing area, or, in the case of a water aerodrome, the normal level of the water, may not, without the approval of the Director, be erected within a distance of 8 kilometres measured from the nearest point on the boundary of an aerodrome.
- (5) No building, structure or object which projects above a slope of 1 in 20 and which is within 3 000 metres measured from the nearest point on the boundary of an aerodrome or heliport must, without the prior approval of the Director be erected or be allowed to come into existence.
- (6) No building, structure or other object which will project above the approach, transitional or horizontal surfaces of an aerodrome or heliport must, without the prior approval of the Director, be erected or allowed to come into existence.
- (7) The obstacle limitation surface as prescribed in Document SA-CATS 139 must be clear of any penetration of obstacles temporary or otherwise.
- (8) In the event of a conflict of interest between land use authorities and air space users, air safety must be regarded as predominant and not to be compromised by land development projects or other obstacles.

Offences

185.01.2 A person commits an offence if that person-



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...

 (f) does or causes, or permits to be done or caused, any act contrary to, or fails to comply with, any provision of the regulations, or a direction given or a prohibition made or a condition imposed or a rule, order or directive made in terms thereof;

...

(m) contravenes any provision of the Act and these Regulations.

4. <u>COMMENTARY REGARDING LEGISLATIVE REQUIREMENTS, LOCATION OF THE PROPOSED</u> <u>POWER LINE AND RISK</u>

HEALTH & SAFETY

- An aircraft takes off at different gradients / hights which is dependent on the weight of the aircraft, the load which the aircraft is carrying at any particular time, as well as the weather conditions and air density. This alone gives the aircraft and pilots numerous complications during flight.
- Upon departing from the aerodrome, aircraft would have to reach a definite and immediate hight at all costs, to clear the proposed powerline. Regarding the above conditions affecting the hights and gradients at take-off, the pilot and aircraft are at risk of not reaching the required hight, which can lead to catastrophic events.
- Likewise, if the aircraft does not reach the required hight, the pilot will then be forced to evade the
 powerline and steer to the north-eastern side, in the direction of congested areas, which may lead to a
 contravention of the Civil Aviation Regulations. It goes without saying that a catastrophic event over
 congested areas will be very unfortunate.
- As explained above, the location of the proposed powerline is at an endangering vicinity to the aerodrome.
 Pilots often have to navigate into alternative routes / directions to avoid obstacles and other hazards during flight. With the powerline to the western and north-western side, the pilots have more limited options of evading danger, which puts the pilot and aircraft at risk. If the aircraft and pilots are at risk, the surrounding environment is at risk. Animals can be harmed, lives can be lost, property can be destroyed etc.



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RADIO COMMUNICATION, NAVIGATION AND INSTRUMENT LANDING SYSTEMS

- The noise from the powerline with such a high voltage or the magnetic field emitted from the powerline, may
 have an effect on radio communication. If the pilots cannot communicate with the aerodrome and with other
 pilots in the air at any particular time, it puts the pilots at risk of miscommunication, which can also lead to
 catastrophic events.
- The above can also have an effect on aircraft instrumentation, which if not properly functioning, can lead to aircraft collisions, incorrect readings etc.

FINANCIAL IMPACT ON WPO AND THE ECONOMY

- Concerning contraventions of the Civil Aviation Regulations, WPO can suffer paying hefty fines which can harm the liquidity of WPO, thereby affecting the livelihood of its employees and the ability to service its clients. In extreme circumstances, the executive staff of WPO can be held personally liable in the case of severe injury or loss of life.
- Contravention of Civil Aviation Regulations may result in temporary and / or permanent suspension of operating certificate / licenses held, which would be detrimental to the organization and community.

5. Submissions regarding the amended location of the proposed powerline

- The originally planned location for the proposed powerline intersected directly with the two primary flight paths regularly used by WPO for servicing their clients and conducting daily business activities involving aircraft flights.
- The adjusted location for the proposed powerline still intersects directly with the two main flight paths mentioned above. Attached you will find a Flight Plan Map as **Annexure** "**A**".
- On the map, the dark blue path indicates the new location of the proposed powerline, and light blue, the initial location.

• The green path indicates the runway of the aerodrome. Directors:

G.N. Orsmond M.A. Orsmond P.G.R Steyn



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- The red paths indicate two flight paths that are taken, with full loads, hundreds of times per annum. Therefore, the amended location of the proposed powerline is a major concern as it can drastically affect the business of WPO.
- 6. CONCLUSION
 - There are legislative requirements which the aircraft, pilots and aerodrome need to adhere to. If the powerline is erected, the possibility of contravention of the above legislation is substantial.
 - The powerline will be deemed as an obstacle in terms of the above legislation. It will most likely be a hazard to aircraft, and may affect the performance of radio communication, navigation or instrument landing systems. The Director of Civil Aviation needs to approve the erection of an obstacle of such a magnitude as that of the proposed power line.
 - In terms of Part 139.01.30 (8) of the Civil Aviation Regulations, air safety must be regarded as predominant and not to be compromised by land development projects or other obstacles.
 - The risks which will emanate from the powerline being located directly in the flight paths of WPO are countless and should not be worth undertaking to erect the proposed powerline.
 - WPO is strictly opposed to the erection of the proposed powerline and alternatives should seriously be considered.

Yours Sincerely,

MA Orsmond

