



# Rainbow SkyReach (Pty) Ltd


Hangar 27, Springs Airfield, Springs  
P O Box 3408, 1544 Dalview  
South Africa

Tel: +27 (0)11 817 2298

Fax: +27 (0)11 817 2297

E-mail: [info@fly-skyreach.com](mailto:info@fly-skyreach.com)

Web: [www.fly-skyreach.com](http://www.fly-skyreach.com)



Publication date: 1<sup>st</sup> August 2019

## SAFETY ALERT

IMPORTANCE	NORMAL
AREA AFFECTED	OPERATING LIMITATIONS
SA/B NUMBER	SA 011-08-2019
EFFECTIVE DATE	01 AUGUST 2019

### TABLE OF CONTENTS:

1. Applicability: .....	2
2. Subject: .....	2
3. Purpose: .....	2
4. Background: .....	2
5. Discussion: .....	2
6. Required action: .....	3
7. Effective date: .....	3
8. Contact: .....	3

### **1. Applicability:**

All Cheetah-XLS/BushCat aircraft.

### **2. Subject:**

Procedures relating to the optional use of airspeed indicators with units/sub-scale in Knots (KTS).

### **3. Purpose:**

The purpose of this alert is to notify operators of the optional ability to install airspeed indicators with units/sub-scale in KTS rather than MPH as is recommended by the factory, as well as to inform operators of the reasons behind the use of the MPH sub-scale, and to outline the requirements for replacement.

### **4. Background:**

Rainbow SkyReach has received several requests by operators who wish to install airspeed indicators with units/sub-scale in KTS, as it is more widely accepted unit in modern general aviation use. Rainbow SkyReach wishes to make allowance for these requests.

### **5. Discussion:**

Historically general aviation and experiential aircraft commonly made use of airspeed indicators in Miles per hour, especially in the USA. In 1975 the General Aviation Manufacturers Association (GAMA) published their "specification for pilot's operating handbook" document which suggested that manufacturers adopt the use of Knots exclusively however this specification was never put into legislation and as a result many GA aircraft still make use of the antiquated unit. In particular, this legacy has remained as a nuance within light and experimental aircraft categories.

The Cheetah/XLS/BushCat series of aircraft have all made use of airspeed indicators with the units/sub-scale in MPH as well as reference to MPH in all published literature as a standard. While it is agreed that the use of Knots is more practical and common than the use of Miles per hour as the standard, changing units as a blanket rule is not a straight-forward task;

The Cheetah/XLS/BushCat series of aircraft are supported by a common operating manual which is required to serve existing serial numbers as well as new serial numbers all built with the same specification. It is impractical to publish separate operating manuals for both units, and it has been deemed unsafe to publish both MPH and KTS within the same manual. This point is stressed in the above mentioned GAMA document. Publishing both units will also add an enormous amount of complexity to the manual as and many instances of speed are tabulated with both CAS and IAS values, for multiple maximum take-off weights, and well as being represented graphically.

For these reasons Rainbow SkyReach has decided to allow operators to make this change to their equipment and documentation at their own discretion, and to perform any legislative compliance actions on their own terms. The suggestion methodology for making these changes is outlined in the “Required action” section below.

Rainbow SkyReach will strongly consider publishing a set of amendment pages to the operating handbook document quoting speeds in KTS during the development and publication of its next version.

## **6. Required action:**

If the operator wishes to change airspeed indicators to those with a different unit/sub-scale, or to change the unit/sub-scale on an EFIS display:

- Hardware changes must be performed by appropriately rated maintenance personnel, and must be signed out in the appropriate logbook. Colour bars must be included which reflect the correctly converted speeds.
- Changes to unit/sub-scale on EFIS displays must ensure that colour bars and/or warning values reflect the correctly converted speeds.
- The operating handbook and all supporting checklist/quick reference documents must be modified show all instances of speed values in Knots using the conversion given below using whichever method they deem most safe.

$$Speed [Knots] = 0.869 \times Speed [MPH]$$

- The recommended procedure for this modification is to:
  1. Photocopy all affected pages onto white paper,
  2. Make all required changed on the copy,
  3. Photocopy the modified pages onto yellow paper and insert them into the operating handbook.

## **7. Effective date:**

This notice takes effect as of the 1<sup>st</sup> August 2019.

## **8. Contact:**

Questions and/or comments regarding this safety alert should be directed to Rainbow SkyReach (Pty) Ltd on:

Phone: +27 11 817 2298

Email: [info@fly-skyreach.com](mailto:info@fly-skyreach.com)