

**RAF Centre of Aviation Medicine** 

Noise and Vibration Division



DSEA-CPA-Policy 1a

Date: 15 MAY 2013

### <u>REPORT NUMBER: OEM/22/13</u> A REVIEW OF THE ENVIRONMENTAL NOISE IMPACT OF RAF CHURCH FENTON.

Author:

References:

- A. RAFCAM Tasking Proforma file reference 0409100903.
- B. RAFCAM NVD Report OEM/17/01.
- C. Wimpey Report No: ER0325/07 dated Aug 89.

# INTRODUCTION

1. The Noise and Vibration Division (NVD) of the RAF Centre of Aviation Medicine (CAM) were tasked at Reference A by DSEA-CPA-Policy 1a to conduct a Noise Amelioration Scheme (Military) review of RAF Church Fenton.

2. A Noise Insulation Grant Scheme (NIGS) review of RAF Church Fenton was conducted in 2001 (Reference B). The most recent Environmental Noise Contours of RAF Church Fenton were produced in Feb 1989 (Reference C). The 2001 review found that the number of movements since 1989 had decreased and the conclusion was the 1989 contours were still relevant.

3. The survey conducted in 1989 included the Percival Jet Provost turbojet which was stationed at RAF Church Fenton in a training role for fast jet, multi-engine and rotary-wing aircraft pilots. In Apr 1992 the station closed and therefore the NIGS was suspended, but the airfield remained open as a relief landing ground for the Tucano turboprop aircraft operating from RAF Linton-on-Ouse. The Tucano replaced the Jet Provost. In Aug 95, the Yorkshire University Air Squadron (YUAS) was relocated to RAF Church Fenton from RAF Finningley and in Jan 1999 Firefly aircraft were introduced to the Station, the Fireflys have since been withdrawn from service.

4. NVD carried out a review of flying operations at RAF Church Fenton on 18-20 Mar 2013.

# BACKGROUND

5. RAF Church Fenton currently supports a number of Tutor aircraft that are attached to the YUAS. The majority of flying activity takes place between 0800 hrs and 1800 hrs.

6. RAF Church Fenton has 2 runways providing 4 directions, 06-24 and 16-34. Runway 24 is the main runway due to the predominant westerly wind and is used approximately 55% of the time. Runway 34 is used approximately 13% runway 06 17% and runway 16 15%.

7. Tucano aircraft from RAF Linton-on-Ouse visit RAF Church Fenton on a regular basis to conduct circuit work. In addition, fast jets such as Tornado, Hawk and Typhoon aircraft may occasionally use the airfield.

8. An official decision to close the station at the end of 2013 was publically announced in March this year.

## RESULTS

9. The average daily movements (ADM) were calculated from the ATC movement logs and statistics for the 10 month period Mar 12 to Dec 2012. For the missing months an average monthly figure for the 10 months was calculated, this was then added to the total movements. The yearly figure was then divided by the average number of flying days (220) to achieve the ADM. These figures are shown at Table 1.

Aircraft Type	ADM (2001)	ADM (2013)
Firefly and Tutor	206.9	10.9 (Tutor Only)
Tucano	20.4	3.11

## DISCUSSION

10. The average daily movements of home aircraft at RAF Church Fenton has decreased from 206.9 to 10.9 since the last NIGS review in 2001. As the number of movements at Reference C are higher than the 2001 review and the numbers have decreased further since the 2001 review the 1989 contours are still considered to be relevant.

11. The NIGS contours produced in 1989 were constructed by determining the contour on one side of the runway, the side considered to be worst case, and then mirroring it to the other

## CONCLUSIONS

12. The decrease in the number of home aircraft movements will not cause the previously defined NIGS contours to be exceeded. This also applies to the night-time NIGS contour.

#### RECOMMENDATIONS

13. It is recommended that new contours are not produced as the number of movements has significantly decreased since both 1989 and 2001, for this reason the 1989 contours are still valid. The official decision recently announced publicly to close the station at the end of 2013 is another reason to not produce contours.

Yours Sincerely,

HdNVD