

# Gama Aviation

## - Farnborough Airport

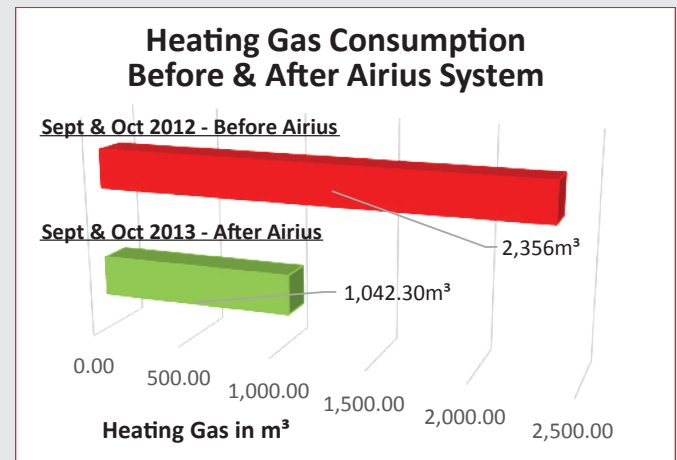
Gama Aviation 

Gama Aviation approached Airius to help reduce the energy consumption in their main engineering hangar at Farnborough Airport, which resulted in a **saving of over 48% on their heating costs** after installation of the Airius system.



### Key Points:

- 48.22% saving on heating costs.
- 1,136m<sup>3</sup> natural gas reduction.
- System - 14 Model 45/PS-4 Units
- Savings calculated for worst case scenario and accounts for weather inconsistencies.
- Following installation of the Airius system only one of the two heating units was required to achieve and maintain desired conditions.



*“Gama Aviation are always looking for new initiatives and technologies to help reduce their energy consumption. Not only to reduce costs but also to adhere to new legislations and contribute towards creating a sustainable future for all, and the Airius system has been an effective solution towards helping Gama Aviation achieve those goals.”*

Sean Hull (Engineering Operations Manager)

# Consumption, Weather Adjustments & Conclusion

Gama Aviation Ltd have two large heating units in their main engineering hangar at Farnborough Airport, which would run continuously throughout the day but never reach the thermostat set point of 14°C.

Following installation of the Airius system their HVAC system would achieve the thermostat set point with only one of the two heating units running. Once at the temperature set point the Airius system would then maintain the desired conditions with only the one remaining heating unit running intermittently.

In September and October of 2012 (PRE AIRIUS) the heating gas consumption was 2,356m<sup>3</sup>. In September and October of 2013 (POST AIRIUS) the heating gas consumption was 1,042.3m<sup>3</sup>. If the weather was consistent each year then this would have shown a 55.76% saving. In reality the mean average temperatures based on figures provided by the MET Office can be seen below.

This shows that in 2012 the temperature was 0.5°C lower in September and 2.6°C lower in October. A temperature change of 1°C can affect a building's heating requirement by between 6-11% depending on the efficiency of the building.

	2012	2013
September	13.4°C	13.9°C
October	10.1°C	12.7°C

If we take the worst case scenario and increase the heating gas consumption in 2013 by 5.5% for September and 28.6% for October, this gives a total increase of 17.05%, taking 2013 heating gas consumption from 1,042.3m<sup>3</sup> up to 1,220m<sup>3</sup>.

This gives new comparable consumptions with degree days taken into account of 2,356m<sup>3</sup> of heating gas in September and October 2012 and 1,220m<sup>3</sup> of heating gas in September and October 2013.

**This gives a true saving of 48.22%.**

