

From: [<mailto:Robert D Jackson \\(\bobj@computer.org\\)>](mailto:Robert D Jackson \(\bobj@computer.org\))
To: [<mailer@mail2.clubexpress.com>](mailto:mailer@mail2.clubexpress.com)
Date: 5/29/2016 10:21:31 PM
Subject: re: [VOBA Forum] TIO-540 Intercooler

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Hello Bill,

Ours is a custom turbo-charged TNIO-500N, not a TIO-540 but maybe our approach could be an alternative to consider for you. We did twin turbos, so we have twin intercoolers -- one mounted in each wing root right next to its turbo. Each intercooler has an inlet air scoop on the bottom and an outlet scoop on top of the wing root.

The inlet scoops also provide inlet induction air to each turbo (after going through an air filter that's not in the wing root). Without a before/after comparison it's hard to say how much drag loss the scoops cause but it's an advantage when trying to keep a turbo engine running cool for the intercoolers to have their own air source and not to be adding to the heat load inside the engine compartment, especially when you're up high where the cooling air is less dense. The turbos have allowed us to run our Velocity 'high and hard'! Here are a few pictures to give you some ideas.

Good luck,

Bob Jackson

Velocity XL/RG/XC

Custom TNIO-550N

1100 hours

N2XF







From: mailer@mail2.clubexpress.com [mailto:mailer@mail2.clubexpress.com]
Sent: Sunday, May 29, 2016 7:09 PM
To: Main Forum
Subject: [VOBA Forum] TIO-540 Intercooler

Hi All,

Is anyone running a TIO-540 with an intercooler? If so can you please zap me some pictures of the intercooler system?

I would like to add an intercooler so any suggestions on where to mount it would be appreciated.

My initial plan would be to mount the intercooler flat directly on top of the engine and then port fresh air from on top of the engine cowling via some kind of induction scoop/fan. The air would blow through the air/air heat exchanger and then down through the engine cooling plenum, through the cylinders, and then out the bottom and aft cowling ports.

Any suggestions/advice is always appreciated!!!

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Cheers!!!

Bill Hunter

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