Approved For Refease 2003/02/27: CIA-RDP75B00285Re00400110005-1 25X1A REPLY TO 29 July 1966 25X1A ATTN OF: DCOL ( SUBJECT: Report on Conference on Thermal Improvements TO: Commander THRU: DCO 1. A conference was held 28 July 1966 in bffice at Burbank 25X1A California. The following persons were present: 25X1A 2. Subjects discussed primarily concerned the emergency suit vent cooling, insulation material in the pressure suit and pressure helmet sun shade visor coatings. 3. It was concluded that more measurements of the inlet outlet suit vent temperatures are necessary. These measurements are to be taken periodically throughout the entire flight. Prior to this time we have not been able to gebdenough information on an entire long hot flight to produce conclusive A HAR assured that his people would be rebriefed on the 25X1A importance of this study and their complete cooperation and coordination Ç€**F** was necessary to expedite a positive solution. It was also stated that vital statistics such as time in flight, time at speed, altitude, fuel load and configuration must be included with each temperature reading. A card recording this information, plus the personal equipment configuration data will be made up on each flight by an article that is wired with temperature 25X1 16 AN sensing device. معرن a. Thus far there have been several steps taken to aid in decreasing the heat problem. One attempt is by the use of added insulated material. C.76 Due to the very high radient heat, it was felt that this might be the answer and one of the subjects was fitted with the insulated material in his suit and three more ordered. This test with subject 1050 was not successful in that there was not enough tolerance in his suit to allow for 25X1 the extra bulk, which resulted in more restriction of vent flow and actually created a warmer condition than without the insulation. However, it is still felt that increased insulation is part of the solution and more intensive study and tests are programed in the immediate future.

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25X	that there is a marked decrease in the temperature of the heimet and visor after being coated. The sun shade visor is coated with I.R. on the outside and A.R. inside, while the helmet is coated with silver. It was established that there is a minimum of 10 degrees centigrade to 12 degrees centigrade difference in the coated and non-coated items. These temperature measurements were taken both at the exposed	
25X	surface and in the interior. Six (6) visors were procured through Perkins-Elmer. are working with (4) four of the units now and the other 2 have been sent back to David Clark.	
25X 25X	stated that he would like to have the visor coatings done by a in the future as he was not satisfied	X1A
25X	however, that this system must also have an automatic means of shutting off the supply of continuous flow during an emergency escape. It was	25X^ 
	d. A new design of the sun shade located on the inside of the canopy, appears to have merit. The present horizontal shade is to be moved forward and the new vertical, accordian type shade will cover the rear 2/3 of the cockpit. One shade has been sent to the area for testing and evaluation. It was felt that if radient heat from the windows and solar heat through the windows were contributing to the problem, then both could be blocked by use of complete sun shades. Findings will be included in later reports.	
<b>0.5</b> V	e. The phase II helmet with integrated mask has also been a step towards better cooling. We presently are carrying six (6) in our inventory. Subject 1051 now has two complete phase II helmets.  has one which he does not wear. has one which	X1A
25X 25X	he wears every flight and has requested a second phase II helmet-mask.  There are two spare phase II helmets; one being the prototype and the	X 174
	mask also, so he will receive one of the spares said he 25	X1A X1A
	4. Evaluation items and maintenance of equipment.	
	a. Some of the test pilots are wearing evaluation items which belong to the project. Prior to this time we have not been receiving the evaluation data in returnstated that in the furure we would receive evaluation information on these items.	X1A

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b. Due to the various programs, most of the test pilots fly at different locations. As a result, their equipment is frequently in transient and many times does not receive as good of maintenance as	
it normally would. Some of the test pilots do not fly at but once or twice a year and some have not flown here for over a year. However, in some cases their equipment is still maintained	25X1
at and yet 90% of their flying is done at or stated that he would check into this. Also,	25X1A
there are three suits in our possession that have not been flown for over 6 months to a year. These belong to  stated that both pilots have adequate suits at other locations.  suggested that we look over the suits and if we can use them, if so, do so, if not, then turn over to  requested that he be sent a message when we decide what to do with these suits. Upon return	25X1A
to I was advised that	25X1A 25X1 25X1A
at his present location. In the future he will hand carry his own suit when ever scheduled to fly at	25X1
(2) 7-3 assembly will be fitted to here at if possible. If it cannot be fitted to it will be sent with other suit 7-2 assembly to at Edwards.	11 Aug
5. Upon completion of the conference, was given an extensive orientation and familiarization briefing and tour of the present test facilities regarding the work being done by there at Burbank.	25X1A 25X1A 25X1A
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Captain, USAF DCOL	25X1A 25X1A

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