Major General E. R. Quesada
Assistant Chief of Air Staff, Intelligence
Washington, D. C.

Dear Pete:

Exhaustive investigation of German technical personnel and American technical sources in European Theater of Operations reveals no confirmatory evidence of German use of so called "Balls of Fire".

In answer to War Department Cable:

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the following agencies were contacted:

2. British Group Control Council.
3. Technical Intelligence Section, USAFE.
4. Electronics Intelligence Section, USAFE.
5. Ordnance Technical Intelligence.
6. ALSOS
7. CICOS
10. MI-10, British War Office.
11. MI-15, British War Office.

None of the above agencies have been able to find any trace of the use of a missile or weapon that would give the appearance of the reported "Ball of Fire". Lt. Col. Sullivan, head of the E.I.S. USAFE, is of the opinion that we
now know of all German developments, and he is unable to find any connection between them and the "Ball of Fire". He also reports that the aircrew reports of the phenomena are very inconsistent, and he believes that the "Ball of Fire" is a mythical phenomenon to which unusual appearances of anti-aircraft measures were attributed. Lt. Col. O'Mara, Technical Intelligence Section, USAFE, who has also made an extensive search to determine the origin of the "Ball of Fire" concurs with Lt. Col. Sullivan's conclusion.

In addition to the above agencies, the following German Scientists were interviewed as to whether or not they had any information regarding the "Ball of Fire":

1. General Von Artheml, Gen Der Flak Ausbildung (Flak Training)
2. General Koller, Chief Luftwaffe Fuehrungstabe (C of S Air Force)
3. Dr. Georgii, Chef Forschungsfuhrung (Special Research)
4. Dr. Fritz Halder, Chef TIR/Flak E. (Guided Missiles)
5. Dr. Schelp, Helmit-Chef Sondertriebwerken (Special Engines)
6. Dr. Waninger, the Managing Director of Rheinmetall Borsig
7. Dr. Klein, Deputy to Dr. Waninger, and previously in charge of Rocket Development including bombs, shells, and ground weapons at Werfenfeld.
8. Dr. Ruhlemann, Fuze Expert for Rheinmetall Borsig
9. Dr. Stutzer, Head of Electrical Institute at Planegg
10. Dipl. Ing. Hans Zacher, Worker on Natter
11. Dipl. Ing. Voight, Production Engineer for Messerschmidt
13. Dipl. Ing. Zimmerman - Chief Eng. Thermodynamics under Dr. Schelp

General der Flak Artillerie Von Artheml knew of no project or experiment being carried out within his department which could possibly be the "Ball of Fire".

General Koller, Chief of Staff Luftwaffe, also had never heard of the phenomenon seen by the Allied formations.

Dr. Georgii stated that had any project such as the "Ball of Fire" been designed in Germany, he would have heard or known of it, because of his position, chief of special research in the German Reich.

Dr. Halder had no idea of what the trailing "Ball of Fire" could be, other than the exhaust from a jet plane at night or static electricity caused by the air disturbance from a great number of planes. He was sure that Germany did not make any guided missile to which the "Ball of Fire" phenomenon could be attributed.

Dr. Schelp, Chief of the Special Information Branch, stated that he knew of no aircraft or rocket designed in Germany that could be this mysterious "Ball of Fire".

Dr. Waninger stated that he knew of all tests and experimental projects which were going on at Leba, an experimental station, and stated that he could not possibly imagine what this particular "Ball of Fire" could be. He, like,
Dr. Georgii and others, consistently suggested that it might possibly be static electricity or some electrical disturbance due to unusual weather conditions.

Dr. Ruhlemann knew of no developments that were under way nor could he ascribe any developments to the seen phenomena.

Dr. Stützer stated that he knew of nearly all of the electrical developments which were going on in the German Reich and that he had never heard such a phenomenon even mentioned prior to being interviewed.

Dpl. Ing. Voight did not think that anything that Messerschmidt was developing could resemble the "Ball of Fire", nor could he give any information as to what it might be. He consistently ruled out the possibility of the "Ball of Fire" being the exhaust from a jet propelled aircraft. This fuel was a cold propellant which was flameless. He spoke of the Horten Brothers Flying Wing which was under development, but this possibility is negated by the fact that only two of the Jet type flying wings were known to have been manufactured, only one of which underwent tests. The reported instances of the "Ball of Fire" far exceed the tests made with the Flying Wing, if such an aircraft had been tested against Allied formations.

Almost all of the above mentioned scientists stated there was a remote possibility that the "Natter" (NF20) rocket launched, rocket propelled, piloted aircraft could possibly be the "Ball of Fire". However, Dpl. Ing. Hans Zacher, designer and test engineer for the "Natter", stated that his "Natter" could not possibly be the "Ball of Fire".

Dpl. Ing Kracht, Jet Airplane designer, also could give no information as to what this "Ball of Fire" might be.

Drs. Georgii, Wanniger, Kline, and Schelp should have known of the existence of a development resembling the "Ball of Fire". However, they were at a loss to connect the description of the "Ball of Fire" with anything that had been used or tested against Allied formations by the German Reich. Added to the difficulty of solving the "Ball of Fire" is the fact that no reports included or described anything but the so-called "Balls of Fire".

I recommend that the active search for the "Ball of Fire" be dropped. However, all agencies will continue with the search for the answer in addition to their present missions.

The conclusion has been reached that the so-called "Ball of Fire" phenomena may be the accumulation of a large number of tests which were conducted with different types of guided missiles at a number of testing grounds in and outside of Germany. The guided missile program within the United States should be studied and the effect of different fuels under various atmospheric conditions should be noted and compared with the reports of the so-called "Ball of Fire". Even though the top German Scientists disclaim that any projects have been car-
ried out by the Germans which can resemble the "Ball of Fire", there is the possibility that the propellant used in the guided missiles and rocket-type planes may show up as "Balls of Fire" or large flames to members of air-crews.

Sincerely,

[Signature]

GEORGE C. MCDONALD
Brigadier General, U.S.A.
Assistant Chief of Staff, A-2