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ADDRESS BY REICHSMARSCHALL GOERING

TO REPRESENTATIVES OF THE GERMAN

AIRCRAFT INDUSTRY, 13TH SEPTEMBER, 1942

TRANSLATED BY

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Report of a conference between Reichsmarschall Goering  
and representatives of the German aircraft industry,  
to discuss problems concerned with aircraft development.

Reichsmarschall Goering: Gentlemen, I have at last invited you here to discuss with you the situation with regard to everything connected with our aircraft; I shall give you my impressions and tell you what I must demand for the future. From the very first day that I took over as Reichskommissar fuer die Luftfahrt (Reich Commissioner for Aviation) I deliberately broke away from the view that building was actually done in government offices or that it was in those offices that the basic principles for development and research were decided. From the beginning I took the view that it would be more practical to put my trust in you as members of the aircraft industry; I felt that you might be able to achieve in free competition results which could not be achieved by government departments; it has been proved that this was correct.

Now, gentlemen, we are engaged in a struggle for life or death and your responsibility has thus become great. It is your task to give my gallant aircrews the aircraft which will give them superiority over the enemy. On the whole we have enjoyed this superiority, first of all with regard to fighters and T.E. fighters; the good old Ju 87 maintains its superiority as a dive-bomber to this day and our bombers used without doubt to be the best. But the situation has slowly changed; the enemy - in particular Britain and America - has caught us up, and surpassed us, not only in quantity (that was to be expected) but in quality too; as far as quality is concerned, the enemy has come very near to equalling us, and in some respects he has already far surpassed us. During the past year I have had to accept very heavy blows and reverses. Aircraft which were to be capable of a great deal, and for which much was promised, failed to live up to those promises. There was a sharp drop in the production of aircraft which were going to be replaced by new types, and yet in four instances I have had to fall back on the old aircraft and step up its production because the new type did not have the expected performance and did not live up to the promises made about it.

The same applies not only to airframes, but also to engines. In this sphere also, heavy blows have been suffered because the new engines at first fell very far short of what was expected of them.

Gentlemen, this cannot go on. I cannot employ the peacetime methods of testing every engine and every airframe and then testing every aircraft for months, right down to the least detail, before allowing it to go into production. It takes so long to incorporate a new development or put a new type into production - from the building of the prototype to the production of the aircraft in numbers - that one constantly hopes that peace will have come before the process is completed. I have never understood why that is necessary. I am told that there is no other way and I have to be satisfied with that, but it is grotesque that a new engine or airframe should require years before it is ready for use.

Now I come to the individual types, but I should like to say in advance that what I shall say applies to all of them. Every firm is permitted to submit a new type for consideration, whether it is an airframe or an engine. It is therefore up to you, gentlemen, whether we take the lead (first of all with regard to quality, but not forgetting quantity) or whether you are going to allow yourselves to be beaten by the opposite side.

I ask that in future there shall be no more of the kind of business where some one says: "My airframe is perfect; it is capable of so much, but the engine does not live up to the promises made for it"; then the engine designer says: "My engine is good, but when it is so stupidly built in it cannot function"; then the armament expert says: "My armament is good, but it cannot be effective because it is so idiotically mounted in the aircraft". That sort of thing is no use to me. You must be in continual and very, very much closer contact with one another in this respect. What you are producing is a complete whole. I do not judge the engine, the

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airframe, the armaments or the fittings, what I judge is the finished article as it stands before me and as it has to be flown by my airmen; if it is not perfect, then I personally am not so particularly concerned which of the particular components is not in order, but I regard the whole aircraft as a failure, and that concerns everybody who has worked on it. For this reason cooperation must be as close as possible between the different branches; this does not need to be arranged through the offices of my department, but can be as it were short-circuited here. It is not as though the engine designer could only discuss with the airframe designer by giving notice to one of the engineers appointed in my offices; contacts can be made directly.

In this context I have one more point to make. Up to now we have always worked on the same principle - we have made improvements here, improvements there, made modifications there, and improved the performance of an aircraft, and so on. I have never been presented with anything which is new and original - it has never got beyond the paper stage. And that, gentlemen, appears to me to make it decisive that you should aim at something essentially new and original, whether it be airframes, engines, armaments or equipment. The sooner we achieve something in this direction, the sooner we will gain an advantage.

I must also demand that plans are carried out exactly as they are explained to me; nothing must be done later which alters the entire matter, simply because someone thinks that he has a better idea and thus loses sight of the original task. It is absurd (I shall come to details later) when I think that I cannot use a large aircraft simply because the gases from the exhaust are so badly led away that they cause fires and it is impossible to make any modifications owing to the structure of the landing gear. It is absurd that you in the industry have not been able to devise any method of preventing fire in bombers and night fighters without sacrificing up to 100 kilometres per hour. You have messed about and dithered around with this problem, and now I hear by chance that the aircrews have solved the problem for themselves; I am of the opinion that those in action will always be able to provide temporary solutions for all problems, and that these solutions are of very real value.

Now I come to day fighters. Let us consider two types, the Me 109 with its numerous modifications and the Fw 190. The two types no longer stand out ahead of all others; they have been caught up and surpassed by the British and American fighters, particularly in respect of climbing ability; to my great annoyance the British and American fighters appear to be able to increase their range quite easily by the addition of extra fuel tanks; this is naturally very unpleasant. Above all, there is always the complaint that the Spitfire is superior to both our types, and our fighters find this fact very disagreeable at the present moment. Moreover I lose a great deal of material because these aircraft are difficult to land - so difficult, in fact, that I cannot use them at night; on the other hand, British single seater fighters can fly by night.

In addition the armament was inadequate for a long time, and it is only now, I believe, that it has been increased.

(Fieldmarshal Milch: Yes.)

I must demand an increase in the armament for day fighters, so that not only are there more guns, but their effect must be greater too. It must be possible, with the help of the explosives which I shall make available (hexogen etc.), to make developments which will mean that our fighters will be able to shoot down the enemy's four-engined aircraft with a single powerful burst. It is intolerable that a fighter should pour its entire ammunition into such an aircraft, firing from short range too, and the brute still not go down.

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An extensive improvement in the performance of aircraft; once again I must stress that our fighter is no longer superior, but that it has been surpassed by the enemy. The speed of aircraft must therefore be increased until it reaches the speed of sound, but at the same time, the best flying qualities must be maintained, especially for taking - off and landing. The average fighter often finds itself based on very bad airfields. The limited range of the fighters means that I cannot pick and choose the airfields which I will use; instead I must base fighter groups close to the advancing troops.

It must be possible to use fighters as fighter-bombers or armed reconnaissance aircraft; what the enemy can do, we can do. I am amazed that the Spitfire, with a camera and all its armament, has so great a range that it can fly as far as Cologne, Frankfurt, and so on. I cannot understand how it can be done.

I would remind you particularly that this is not a problem which can be solved piecemeal; you may make the aircraft a little lighter and eliminate something and exclude something else, and that might give you an extra 50 kilometres to the range, but that is not decisive; this is a problem which can only be solved by tackling the basic principles.

High altitude fighters; it is obvious that as time goes on aerial warfare will be waged at higher and higher altitudes; we need a high altitude fighter which can be produced by using a high altitude engine with mechanical superchargers and exhaust-driven turbines etc., and other means of increasing altitudes; such an aircraft can be produced, and it must be produced. I require high altitude fighters, and they should not be confused with the so-called "interceptors" which are only capable of being in action for a short time. I need high altitude fighters which will be able to stay at the heights at which the bombers will be found (14 - 15 kilometres) for long enough to be able to shoot them down.

One of the most urgent problems, gentlemen, is that of the night fighters. I must demand that you design a trap to catch the flames from the exhaust; this device should be faultless, and yet it must not involve a drop in speed - or at any rate, not a significant drop; 10 - 15 kilometres per hour would not be too bad, but the present situation, with losses of speed between 60 and 80 kilometres per hour, is absurd. Research must be carried out on this problem with the greatest urgency; in future I shall have accurate reports made to me on the subject, together with details of the firms concerned.

Night fighters will gradually have to be developed as an individual type. It is not right that I should have to be constantly borrowing bombers (for night fighter purposes). Neither bombers nor day fighters are 100% suitable for use as night fighters. We must have something new; there must be a night fighter which will possess all the attributes which a night fighter ought to possess. This continual borrowing of other types of aircraft does not appeal to me. But if I must borrow, I shall not draw on out-of-date bombers; I hope it will be possible to make use of the high speed bomber, which is at last making its appearance; the night fighter is absolutely useless if it cannot reach quickly enough the heights at which the enemy aircraft operate today. The Russians undertake ludicrous operations, yet nevertheless they manage to cause unrest in and around Berlin, and they actually fly at 8,000 - 9,000 metres. An out-of-date night fighter cannot keep pace with them; it takes too long to climb high enough and is then unable to catch up with the enemy aircraft. Therefore night fighters must be capable of speeds in excess of - far in excess of - that of the fastest enemy high speed bomber; as the enemy is now using his four-engined bomber as a night bomber, the speeds are extremely high and the altitude great.

Provision must be made for night fighters to be equipped with special apparatus and the most powerful armament. Night fighters have only one chance; they only fire once. If they miss, they do not meet that particular aircraft again, because all the calculations are valueless the moment the

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enemy bomber turns, circles and flies off its course. Even though the bomber only changes its height by 200 or 300 metres, and provided that it is not a bright moonlit night, the night fighter does not spot it again. When the night fighter has been guided to the bomber, and has been given permission to open fire - that means, when the fighter is very close to the bomber - then it must have sufficient fire power to guarantee that when it opens fire - and it opens fire at close range - there must be no doubt that the enemy will go down. That means that the fighter's armament must be so strong and the ammunition used so powerful that a four-engined bomber goes down immediately upon the first burst. The fighter cannot attack a second time, and night fighter pilots constantly complain to me that the large four-engined aircraft are difficult - very difficult - to contend with.

Gentlemen, I have just said that night fighters must be produced in greater quantities. But not only night fighters must be produced - there must be day fighters too. The enemy can make these troublesome incursions because he flies at such high altitudes that only the sound of the aircraft engines is perceptible (aircraft are seldom spotted by day), and we are not able to intercept him. How are the intercepting formations supposed to be able to find him? They cannot find him of their own accord. The situation is not as easy as in the first World War; when aircraft flew at heights of only twelve or fifteen thousand feet, it was possible to see a cluster of A.A. bursts, and the whole A.A. defences could then fire roughly in that direction. Such a process was possible then. Moreover the depth to which the enemy could penetrate was very limited. Nowadays, aircraft fly by day from England to Koenigsberg, Warsaw and to Upper Silesia and back; they must cross areas where there are strong concentrations of A.A. - and yet not an aircraft can find them. Moreover, fighter aircraft cannot fly around for long periods; you have seen to it that they cannot stay too long in the air.

Consequently the day fighter must be carefully vectored; it must be vectored exactly onto the enemy. In the past there have been two, four, or even six occasions when that has been successfully accomplished, and on each occasion the day bomber went down because the fighter was accurately vectored on to the lone-flying reconnaissance aircraft, and then shot it down. I must therefore insist that fighter control be ensured for all types of fighter aircraft.

Another subject of decisive importance is that of propellers. There must be particular attention paid to propeller development for all spheres of fighter work, with special reference to high altitude flying and the use of the propeller as a brake both on landing and while in action. I know that these are all points which have been stressed for a long time and that you must all be aware of them, but I must say that I have called this session today because I cannot rid myself of the feeling that a feeling of lethargy has gradually developed. There is a lot of fiddling about, but no one ever produces anything which is original, plain or satisfactory.

I feel that there ought to be much more concentrated work in the planning offices, and that certain details ought to receive closer attention than the rest. In every sphere of activity today we have certain matters which are considered more important than others, and it is just as necessary that this should be so in the planning offices as in the places where aircraft are in production.

It is also my wish - and I have expressed it plainly on many occasions - that there should be a continual and active exchange of opinions and information. Gentlemen, will you at long last let the interests of your own firms take second place! Later on there will be plenty of time to defend your own interests. There are often signs of envy, which is very much out of place at the present time, and in future I shall not tolerate these exhibitions. It is intolerable, the number of commitments which some people accept without passing on information to their competitors. If a designer makes some modification, he has to sign various documents to

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say that none of his experience will pass into the hands of other firms. Gentlemen, that cannot be permitted. If we lose the war, your industry - like everything else - will disappear. I am only interested in one thing: winning the war at all costs. Everything else can then be settled later. But for the moment I do not want there to be any more of this sort of obstruction. If such behaviour does occur, I shall hear about it sooner or later, and I shall have no patience with it. On the contrary, you must pool all information immediately it becomes available. You must understand that to me you are all of the same importance. The names do not matter one scrap; I do not care whether it is a Messerschmitt, a Dornier or an Arado; all I am interested in is that it is a good aircraft. If there is no improvement, gentlemen, I shall eliminate your names entirely; aircraft will be given names which have absolutely nothing to do with your respective firms, and it will be impossible to ascertain who built any one aircraft. Naturally I want every firm to have the desire to give of its best, not by means of the methods I have described, but by means of a genuine increase in production. Therefore, pool your information continually.

Now I wish to deal with bomber aircraft; there the situation is most depressing. When I survey the prospect I could really give way to violent anger. For years I have been asking for a fast bomber. Gentlemen, you lay yourselves open to criticism, for you have not been able to produce one. For years and years - even before the war - I kept on repeating that I wanted a fast bomber and also a high altitude bomber. Instead of a high altitude bomber, I have had to be content with the most out-of-date junk; the production of the fast bomber has been a complete failure; I have not a single one which is worthy of the name. Look at the enemy. I should really like to know what you would have said if I had given you the task two years ago of producing a fast bomber entirely out of wood. You would probably have asked: "How can such a thing be built of wood?" The British are building one out of wood today. It is naturally much less complicated, but it is fast and a constant source of annoyance to me. It is quite a primitive thing, and there is not much aluminium in it, but it has such a high speed that our aircraft can only attack it from favourable positions. God knows how happy I should have been if one of you gentlemen could have built me a wooden aircraft capable of the performance we demanded. But those heavy, heavy aircraft! Besides, we have not sufficient aluminium. Therefore we must either go over to steel, or you will have to remember that there is such a thing as wood, and that aircraft, very fast aircraft can be built of it, as the British have shown.

So once again I repeat that I will make a tax-free award to any designer who can provide me with a fast bomber and a high altitude bomber (as far as high altitude bombers are concerned, it is essentially a matter of engines); I should have no objection to making an award of millions of marks, if I really had something to show for it.

The Institut der Forschung (Institute of Research) is at your service, and you may use it. Today research is much more closely integrated, and you have only to submit a problem, and I will see to it that it is immediately transmitted to the research experts, just as you desire.

When I talk of a fast bomber I mean one that for three months or so is faster than the enemy's fighters; thus I shall have three months in which to be able to fly against Britain and destroy the most important targets. I believe that to begin with the fast bomber should attain its maximum speed at low altitudes; in other words the bomber will have to approach its targets from reasonably near the ground and not from a high level.

I must demand that the fast bomber be able to carry a load of 1,000 kilogrammes, and by that I do not mean merely one 1,000 kg. bomb; the 250 kg. bomb has proved the more effective for such kinds of attack. Naturally the load must be interchangeable.

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The fast bomber must be able to penetrate to a depth of 1,000 kilometres and be capable of 700 kilometres per hour. Whatever happens, one basic principle must be observed; speed rather than protective armament! Armour-plating and guns should thus weigh as little as possible, so that the aircraft's superior speed may be used to the full effect. The provision of a trap for flames from the exhaust is an essential demand. Instruments giving ample warning of the approach of night fighters must be fitted - as in all other bomber aircraft, for the same instruments can naturally be used to give warning of day fighters.

Similar instruments are also to be fitted in night fighters, long range night fighters and long distance reconnaissance aircraft.

The enemy will naturally attempt to apply to his fighters the improvements he has made to his high speed bombers; thus our high speed bombers must be capable of even better performances, and the not too distant objective should be to produce a fast bomber capable of travelling at the speed of sound.

In addition to the provision of a bomber capable of the speeds required - even though other conditions are modified - a single-engined aircraft will also have to be built on similar lines; it will have to have a very powerful engine. I cannot go into all the details connected with a single-engined fighter, otherwise the whole business will become too complicated, but even though I do not mention it and do not go into the matter, the fact still remains that in my opinion the single-engined fighter is the key to the problem.

I would refer you to the additional methods of securing increased performances: GM 1, alcohol - water injections; the use of jet engines.

Now to deal with long range bombers. Here is the most tragic chapter of all. When I think of it, gentlemen, it is enough to make me scream. I do not possess a single long range bomber. When I think of all the lies I was told about the Ju 88! It was supposed to be able to fly anywhere; it could fly about for an hour beyond Ireland. We calculated accurately how we were going to wipe out convoys everywhere. And then I had to count myself lucky if anything ever got beyond London. I should be grateful - I have already said this to the men on research and development, but I should like to say it to you, too - I should be grateful if industry would stop trying to do magic, and I hope it will lose its desire to compete with the great magicians. You know that each year these people make an award of a ring to the best magician and illusionist of the current year. I am almost inclined to approach them and ask them to give the ring to the aircraft industry in the near future, for it seems to me that that is where there are the greatest magicians and illusionists. But you will really have to give up these practices for there are other professions which are authorised to perform magic; you must not try to go into competition with those people, for it is your job to stick to facts. Before the war I saw performances in Rechlin, and I can only say that our conjurors are a lot of bunglers. I have never seen the equal of the tricks which were performed before me and before the Fuehrer. I should therefore be grateful if you would give up those practices and get down to facts once again.

I do not possess a single long range bomber. It is with terrific envy that I regard the four-engined British and American aircraft. They are far, far in advance of us. The only thing which remains is the He 177. It is there, but I dare not use it. After all I can only use a long range bomber which conforms to all the principles of security. Of course, those people responsible for the airframe may say: "Why is it that such an idiotic engine should suddenly be introduced, an engine which is so stupidly welded that no one can get at it?" Every possible danger is present on braking. I was told that there would be two engines, built one behind the other, and then suddenly I find myself confronted by an abortion of an engine, made up of two engines welded together; no one can

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get at it and maintenance is made extremely difficult. This engine is put into the He 177 and then the exhaust flame damper is so badly arranged that the undercarriage has to be divided into two parts, so as not to interfere with the arrangement of the exhaust pipes; and there you have the muddle. The wretched thing is such that such little things as that mean that it may go up in flames at any moment. I have never been more annoyed than when I saw that engine. Can anybody conceive how such an engine is to be serviced at the front? I do not think the plugs can be taken out without dismantling the entire engine! Everything must be stripped down. It is all really so entirely stupid that I cannot find words to express myself.

But think of all the things I was told! I asked why you didn't use four engines. I was told that it was not a modern idea to use four engines, and that results would be better with only two propellers. Then I said that the enemy was being a great source of danger to me with four engines; he had a very dangerous box of tricks in which each engine and each propeller was separate. But I was told no, we would build ours another way; we would have two engines close together, or one behind the other.

(Interjection by Fieldmarshal Milch.)

- Then on that point the firm is excused. It is idiotic to demand that a four-engined aircraft should be able to dive. If some one had only mentioned that for a second I could immediately have said that it was complete nonsense; four-engined aircraft do not need to dive. I am very happy if a twin-engined aircraft is capable of diving. In the past we have only had perfection in diving from a single-engined aircraft, the old Jolanthe. The same applies to the enemy. He cannot make proper dive-bombing attacks, because his twin-engined aircraft will not dive. It is madness to demand that a four-engined aircraft should be able to dive. If I had only known, I should naturally have had something to say. Now look where we are.

I must concede that the airframe is good. If only the correct engine had been built in, we should have had a long range bomber. But at the moment we do not possess one. What do you think, Herr Heinkel, will you be able to make one eventually, or is there no hope?

Heinkel: The danger of fire from the engine has been practically overcome. The airframe must be reinforced to enable the aircraft to dive.

Reichsmarschall Goering: It does not need to dive.

Heinkel: Then it can be delivered to the front at once.

Reichsmarschall Goering: The He 177 does not need to dive; all that is necessary is that it should be able to fly in to attack from an angle.

Heinkel: To demand that an aircraft of 30 tons (313 tons) should be able to dive is something which has never before been demanded.

Reichsmarschall Goering: No one is asking that it should be able to; at least, not as far as I am concerned. Can't the aircraft fly in at an angle of 30 or 40 degrees?

Heinkel: We have already achieved that; the aircraft has already flown at more than 700 kilometres per hour.

Reichsmarschall Goering: I am satisfied if such an enormous aircraft can fly in at an angle of 30 degrees. But it would be madness to expect such an aircraft to dive.

Heinkel: In recent weeks there has been a tendency for the wings to be dented when the aircraft dives or straightens out quickly, but everything is in order for level flights up to speeds of 700 kilometres per hour. If

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there is some modification of the demands with regard to the aircraft's capacity to dive, then in my opinion everything is all right.

Reichsmarschall Goering: I do not demand that the aircraft should be able to dive.

Fieldmarshal Milch: It would be pointless for this particular aircraft.

Reichsmarschall Goering: I should like to make quite clear what will be expected of the He 177. First of all, it should be able to carry torpedoes for long distances. It does not need to be able to dive to do that. It is not even necessary that it should be able to glide. The more horizontally it flies the better. In addition, it must be able to carry special bombs to attack shipping at great distances. And if I want to raid Sverdlowsk or somewhere like that, it must be able to fly at a suitable height. We now possess a splendid bomb sight, and I have seen how men who had been trained in its use could achieve results which could hardly have been achieved if diving technique had been employed. Therefore I am quite prepared to accept the aircraft even though it cannot dive. But do see to it that the thing is at last a really long range bomber which can carry a decent load over long distances, and which is above all reliable and safe in every detail of construction (the engines particularly), so that it can be used to fly long distances over the sea to attack convoys at places where they are not very well protected. Is the danger from fire completely obviated?

Heinkel: That was solved in the spring of this year.

Fieldmarshal Milch: It depends on the airframe. There are still certain modifications to the airframe which are necessary and they will have to be completed as quickly as possible. Heinkel will have to concentrate on the 177 during the coming weeks, and then the aircraft will presumably be in order in a few weeks' time.

Heinkel: In the last few weeks I have been in contact with the best designers. We have done everything possible to complete the aircraft. If it does not need to be able to dive, things are considerably easier.

Reichsmarschall Goering: You have heard my view quite plainly today; the aircraft does not need to be able to dive.

Heinkel: The fact that the engines are arranged in pairs means that the aircraft is the most efficient four-engined aircraft in the world; its flying qualities are excellent.

Reichsmarschall Goering: You believe that it is better to have only two propellers and four engines?

(Heinkel: Yes, it is better.)

- I was recently told that even if one engine failed, the whole power unit did not fail.

Heinkel: Yes, today with the welded engine .....

Reichsmarschall Goering: This power unit is nevertheless not much use. You may be able to give me a wonderful engine - but if you cannot service the engine and airframe to some extent at the front, then the aircraft is of precious little use. In this way, I might have 36 aircraft and only two of them ready for action. The aircraft may be able to do anything and everything, but I shall have to have several hundred times the number in reserve because servicing is so very difficult. And no one is going to tell me that it will be simple to service these two welded engines. To make the simplest repairs you have to unscrew nearly everything. I don't know who was responsible for the idea. I was told at the time that there would be two engines, one behind the other, or side by side, and then in some other

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context I was told that the engine was well known, that it was correct in every way and that there would be no danger if it were welded to another. At the time I pointed out that there was a difference between welding something with a hanging or a standing cylinder.

I must therefore ask you to concentrate on this aircraft. I need some long range bomber squadrons quickly. I do not possess them today - the Ju 88 has to do everything.

But we must not be content with this aircraft. There must be immediate research into the further development of this class. The tactical significance of the aircraft lies in the fact that it can be used for attacks on shipping, and it has the range necessary to permit attacks on Russian industries, even beyond the Urals and the Volga basin.

The high altitude bomber; as long as it is capable of higher altitudes than the enemy fighters, its speed need not be very high. You need not pay any attention to speed. To begin with, it must be capable of flying at heights of 14 - 15 kilometres (naturally increasing later) and it should be able to carry a certain bomb load. I will be reasonable and stipulate 500 kilogrammes. I would prefer more; but 500 kilogrammes must be the minimum, and I do not mean one single bomb; it would be best if it could carry 10 bombs of 50 kilogrammes each, or at least 2 bombs of 250 kilogrammes. The greatest degree of inconvenience would be caused if it could fly over a town for a long time before dropping a bomb, and then circle around for 10 minutes before dropping a second; it would then fly to some other place in the vicinity and drop another bomb, and so on. That is what I should like it to do. The wing span may be enormous. Speed is of no importance to this aircraft; its safety is assured by the height at which it flies. As long as I know that the enemy fighters cannot fly so high, it does not need to have any armament. But a height of 14 kilometres will only be sufficient for quite a short time. The enemy were naturally taken aback when they saw how a few old crates could fly around, and their fighters have been fitted with a boost so that they can reach these high levels. Previously the Spitfire could not go into action higher than 11.5 kilometres.

The aircraft which I have mentioned - fast bombers, long range bombers, high altitude bombers and dive-bombers - are special types as far as I am concerned. In addition I shall also need a general purposes bomber, i.e. a bomber capable of carrying a load of 2 tons, whose range should be 1,000 kilometres, and which should be twin-engined and not too expensive to fly. Let us take the Ju 88 or the Do 17 as examples (although they must both be still further improved); ~~they are~~ good aircraft with a decent speed; they can safely be used at night; by day they can be used, provided fighter protection is available; their defensive armament in the rear is strong. There is no doubt that machine guns are not sufficient. What we need are cannon or very heavy machine guns - 1.3 cm., 1.5 cm., 2 cm., 3 cm. and more. At the moment my bombers are far too badly armed. If you cannot make a bomber capable of extraordinarily high speeds then you must give it good armament to the rear. As far as the long range bomber is concerned, that is obvious. My chief complaint about bombers is the poor armament they have. As soon as possible we shall have to go over to weapons employing remote control methods. I do not want there to be a rear turret installed in the twin-engined bomber fuselage; there should simply be a gun which can be fired by remote control. In the turret there will have to be a heavy weapon, i.e. a cannon, which will have to be man-controlled as long as the remote control weapon does not ensure 100% safety. I consider the further development of the general purpose bomber to be of the greatest importance. In future that type will form the greater part of our bomber strength.

Now I come to short range bombers. By that term I mean first of all the dive-bomber. The light Stuka, the Ju 87, remains the best aircraft in this category, but it must be realised that it can only be employed quite near to the front, and even there its possibilities ought to be developed

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further. The usefulness of the Ju 87 did not lie simply in its uncomplicated method of dive attack, but also in the fact that it had an iron undercarriage which was not retracted, so that I could set the aircraft down on any sort of airfield. Thus it was like the Stork; it could follow the infantry, and always be where it was wanted. When I consider the influence which all kinds of aircraft have had on the conduct of the war, then I must admit that the old Jolanthe stands out on the one hand and on the other, naturally, the fighter. They have been the two decisive aircraft. When the situation was critical, and the infantry could no longer advance because they were confronted by trench after trench, then it was the old Ju 87 which came to the rescue. When it turns up, the infantryman knows that help is at hand. Naturally I cannot use the Ju 87 far behind the lines, but the aircraft was not intended to be so used. It is effective at a point just one jump ahead of the infantryman. He sees the effect it has, and that gives a terrific boost to his morale. The Ju 87 is so stable that it is at home anywhere, and it can land on airfields where no other aircraft would even think of being able to land. Therefore I will not give up the Ju 87. It would be very fine if you could increase its speed, but I cannot imagine that there will be an aircraft in the foreseeable future which will be even remotely suitable to replace the Ju 87. I address an urgent call to everybody who has to produce the Ju 87: produce as many as you can! The Ju 87 is the bomber which has a decisive influence on the ground battle.

Now to ground attack and anti-tank aircraft! I urgently need anti-tank aircraft, especially those fitted with 3 cm. weapons. If you only knew how simple it is to produce such an aircraft! They will not be used to attack tanks on the enemy's side of the front. I want an aircraft that can be held in squadrons behind the line, rather like a fire brigade; then as soon as a message comes through that tanks have penetrated our lines at such and such points and are now spreading over the rearward areas, these tanks will have to be attacked immediately by the aircraft. In this way there is no risk to the aircraft, because it does not fly over enemy infantry forces, but only over our own. Therefore it can attack the tanks from the side and from heights of 10 or 15 metres, and shoot them up. The quicker such tanks are dealt with, the greater is the ability of the infantry to hold their line. I leave you to imagine what it would be like if there were no flak and no new anti-tank weapons, if eight or ten tanks were careering around and you knew that you had no hope of attacking them. In such a case you can only be thankful to God if there is a hole into which you can creep, so that the thing can pass over you without rolling you out flat. If something can be done quickly in such cases - if an aircraft arrives quickly and is capable of putting the tanks out of action, then that kind of threat is very quickly removed; it is of tremendous importance when the infantryman realises this fact.

But the ground attack aircraft which has to fly low over the enemy must be well armoured; for in this particular sphere most of the aircraft shot down are accounted for by the infantry. It is essential that in anti-tank aircraft the armament should be continually improved, and that the calibre of the weapons should be increased so that the aircraft is really able to destroy the heaviest tanks. It is important that the ground attack aircraft should be able to carry a number of very small bombs, and have such armament that it can cause confusion on the ground. In addition, it must be armoured-plated.

Transport aircraft; if I had to criticise my work in the creation of the Luftwaffe and say what was done well and what badly, I should give myself the highest marks for recognising in good time the need for a fleet of transport aircraft and for building up such a fleet of Ju 52s. It would take days to say what this transport fleet has accomplished and what situations it has eased. A modern air force and the up-to-date conduct of war are unthinkable without a large fleet of transport aircraft. If you want to know how large our transport fleet really ought to be today, I will tell you that it really ought to comprise 5,000 aircraft.

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The qualities demanded of a transport aircraft are that it can carry very large loads, that it can carry cumbersome articles and that it can land and take off at poor airfields. Height and speed are of secondary importance. Whether the aircraft flies at 150 kilometres per hour or 400 kilometres per hour does not matter. A speed of 150 kilometres per hour is such a tremendous speed for a transport aircraft that one can be quite content with it. 200 kilometres per hour is better; but speed is not the decisive factor; unlike a car, an aircraft can go the shortest way and keep a constant speed of 150 kilometres per hour. The main point is that a transport aircraft should be able to carry as much as possible.

I hope you realise that there must be economy in the use of aluminium in transport aircraft and in all kinds of training aircraft. I cannot provide any more aluminium for training aircraft and I may not have any to spare for transport aircraft; at the most I shall only have sufficient for a few. We need a number of transport aircraft rather like the Ju 52. The improved type is the Ju 352. I regret that it requires so much aluminium.

(Fieldmarshal Milch: The Ju 352 is made of plywood!)

Then comes the transport aircraft capable of carrying heavy loads over long distances and finally there is the giant transport aircraft. The ideal would be to possess a transport aircraft capable of carrying a heavily armoured tank - it need not be a large tank - so that it would be possible in future to send in tanks etc. very soon after paratroops. At all events, the giant transport aircraft should at least be able to carry the heavy anti-tank gun - today it is a 10 cm. gun - or an 8.8 cm. anti-aircraft gun. Everything depends on cargo space in the giant transport aircraft. In long range transport aircraft, the range is most important. I have already listed the requirements for the normal transport aircraft. The speed does not need to be high for any of the three types; it is of least importance as far as the short range and giant transport aircraft are concerned.

Helicopters; I must have them, but will say no more on the subject.

Now I come to the development of engines.

General requirements; they should be light in weight, small in size and simply constructed, to facilitate servicing. What I should prefer most would be one or two engines of 1,000, 2,000, 3,000, 4,000, 5,000 or 6,000 horse power each, so that I could say that such and such an engine should go into such and such an aircraft, and so on; in this way there would be a firm basis established. I must demand up to 6,000 horse power. In this way it will be possible to select the 1,000 h.p. engine for one thing, the 2,000 h.p. engine for another, and so on. This method would be clear and simple.

Engines for high altitudes must be regarded as special developments; exhaust turbo - superchargers, multiple superchargers, intercooling of manifold pressure and the use of additional means of securing improved performances (GM 1 etc.).

I have already spoken at length about flame damping. That should not be too big a problem for you and your designers. You should be able to achieve what is necessary by placing the exhaust collector suitably (not allowing any decrease in efficiency), by using exhaust turbo - superchargers and by devising new methods.

As far as the Services are concerned, these are the requirements: first of all, the engines should be easy to service and be accessible in all parts. That I must demand. Do not come to me with those stupid engines which will run for no one knows how long, but which must be completely taken out and packed off to the factory as soon as anything has to be done to them.

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If such crazy methods are used, the number of aircraft ready for action is unbelievably low. Therefore the basic demand is for simplicity in servicing and easy access to all parts. In addition there must be ability to start up well in Arctic conditions - this can be provided by the use of the new fuel mixture - and the engine should be sure to run properly in tropical conditions. Automatic devices can be introduced, but I must ask you not to make designs too complicated.

Above all, gentlemen, I should like to see a certain number of aircraft equipped with the very latest devices so that they would be available for special duties. But let us put a stop to the complications and minor additions to the normal bomber or fighter. After all, the pilot must have something left to do. When you can bring things to such a stage that I can install a robot then it will be the simplest thing possible to turn it loose; but until we reach this stage, let us leave some things as they are.

Economy of metals which are in short supply; the use of slide-valve gear is one way of economising in steel alloy. But I will not talk now about metals which are in short supply, because God knows I have said so much on that subject that I believe the stenographers can give up taking notes; all they need to do is to take out the old reports, for I have always referred to this problem when I have spoken here. If it all goes down to posterity people will ask: "Good gracious, what sort of fools - naturally you yourselves are not meant - had he to address?" But I have spoken on this subject time and time again; and if there had been any relationship between the effect and my speeches, we should not be using copper and similar materials; we should cast them aside with contempt. But unfortunately the reverse is the case.

I must further demand the most extensive use of steel, but it must not be allowed to affect the weight.

It is also of the greatest importance and significance that there should be a decrease in the time taken to produce an aircraft; the whole business must go faster and faster. And just a word about interchangeability. At Rechlin every possible variation was demonstrated, but I do not believe it any longer; it was all a swindle!

Now I come to weapons. Gentlemen, I consider that the development of aircraft armaments is of decisive importance. Good armaments can atone for many faults in the engine and airframe; if I must fly rather slower and at lower altitudes because the engine and airframe designers have not done their job perfectly, then my armament must make up for it. If aircraft fly well in formation and have good armament and a gun which is highly effective, then it means that a bomber can fly around, though there may be a fighter in the vicinity. I have already had experience which shows that when bombers fly in close formation and possess good armament they can beat off fighters before any damage is caused. So weapons can be decisive.

The fundamental need is for an increase in weapons, especially for fighters of all types. There should also be research into the further development of aircraft armaments and ammunition, with special attention being paid to:-

1. An increase in the speed of firing, until the minimum is 1,000 rounds per minute.
2. An increase in the speed at which the bullet travels until the minimum is 1,000 metres per second.
3. The greatest effect should be achieved, by the use of particularly powerful explosive bullets - that is of decisive importance.

4. A continual improvement in the armour-piercing ability of aircraft ammunition, so that these marauding tanks are no longer such a threat.
5. An increase in the calibre of the weapons.

And with regard to gun mountings:-

1. A unified gun mounting should be designed - that is absolutely essential!
2. There should be a rigid elimination of types of mounting in production, so that the minimum of types is produced.

Once again I must ask you to keep an eye on practical matters of production when you are making developments. If you possess a designer of tremendous value, appoint some one to work with him who will keep his feet on the ground and who will remind the designer that his equipment will have to be produced on earth and not on the moon - and that it will have to be produced quickly, too. The designer must bear this in mind. The most intensive cooperation of the aircraft industry is necessary on this point.

3. Arrangements must be made to guarantee that weapons which have been developed are made available for use in action.

This applies principally to remote control weapons. It is madness to think that I was shown the prototype of a remote control weapon even before the war, and that those of you gentlemen who are concerned with the problem still have not succeeded in providing me with a perfect remote control gun.

Bomb sights; here the emphasis should be on the simplification of the automatic devices attached to the bomb sight - the same applies to aircraft armament.

Bombs; experience gained during the war has shown that the following problems are of particular importance when considering the future research work on bombs:-

1. Anti-personnel bombs must be devised; these include:-
  - (a) a small splinter bomb, which must be capable of being aimed accurately from a high altitude and which must have a detonator which is so sensitive that the bomb will explode, even when striking soft ground;
  - (b) a splinter bomb, provided with a sensitive detonator; this will be used in winter and should be so constructed that the bomb will explode on landing on snow, thus making the majority of pieces of shrapnel effective. But I need this kind of bomb in such numbers that it can be dropped and the enemy will not know where there is an area free of bombs.

(Fieldmarshal Milch: The 1 kilogramme bomb!)

- Yes, but it must have so much force that the enemy does not merely feel a draught down the back of his neck.

Fieldmarshal Milch: The Papp Battalion was attacked by a bomber, and 5 out of every 600 men were hit.

Reichsmarschall Goering: It's a good bomb if it cuts through someone's head.

Fieldmarshal Milch: It is quite powerful.

/Reichsmarschall

Reichsmarschall Goering: Yes, that particular bomb is excellent.

2. Bombs fitted with a hollow charge will have to be devised for use against tanks; they will have to be able to pierce 100 mm. of armour-plating. It is also desirable that there should be a fragmentation effect at the same time, so that the accompanying infantry will be affected. A special kind of detonator will have to be developed.
3. Bombs must be designed for attacks on towns. They include:-
  - (a) incendiaries, not made of electron but of materials which are available in Germany; they should be highly effective and difficult to extinguish. The British have been complaining about this kind of bomb already, as well as about the kind of bomb which explodes from inside another;
  - (b) bombs which make it more difficult for the fires to be fought; they may either take the form of anti-personnel bombs combined with incendiaries, or they may be explosive bombs with sensitive detonators.
4. Bombs for use against targets at sea. For attacks on warships there should be an increase in the armour-piercing qualities, and there must be greater assurance of direct hits; it really makes you despair - the "Illustrious" was hit by four 1,000 kilogramme bombs. The enemy abandoned ship, but we could not sink it. When the ship had been repaired (or it may have been a sister ship of the same type), it was hit by six bombs, including some of 1,000 and 1,400 kilogrammes. The vessel burned like a beacon. The enemy fought the flames all night - till 5 o' clock in the morning - then the ship returned to base. God knows what sort of bombs you are dropping, but the fact remains that I cannot sink a big ship.

(Interjection: Torpedoes!)

- Yes, let us have torpedoes; but really there ought to be a bomb capable of finishing a ship off

(Fieldmarshal Milch: The present 1,000 kilogramme bomb!)

- I don't know what the devil is wrong with it. It explodes too soon. An aircraft carrier is an enormous thing. You have to begin by destroying a few stories of it first. The most vulnerable point is beneath the lower armour-plated deck. That is where the bombs have to pierce and penetrate. That is where the fuel is. Then the vessel catches fire. It burned hard, too. Can you imagine it? I have seen the photographs. The French could see it from the Algerian coast. But the fuel did not burn - it was only the fuel which was in the aircraft. But the fuel below the armour-plated decks did not catch fire, otherwise the aircraft carrier would have gone down blazing like a torch.

As I have already said there must be an increase in the armour-piercing ability of the bombs we use against naval targets, and there must be more guarantee of a direct hit. There must be further research into the metals used in armour-piercing bombs, but high alloy steels, which are difficult to obtain, must be avoided. The degree of accuracy possible when bombs are dropped from a high level must be improved by research into the use of radio-controlled bombs.

5. There must be electrical detonators for use in bombs directed against land and sea targets. While the aircraft is in flight, it must be possible to decide whether a high level attack shall be made and the bomb shall explode:

/immediately



immediately on impact,  
with a short delay (against land targets),  
or with a long delay (against sea targets).

If a low level attack is planned it should be possible for the bomb to be of the delayed action type against both land and sea targets.

6. A bomb should be devised which will be particularly effective in opposing landing operations.
7. In general the aim should be to increase the efficiency of the bomb by improving its explosive content, while still retaining the certainty that the bomb will explode. It will be possible to unify the bomb production programme as I have ordered by merging thinly-oased mines with anti-personnel bombs weighing up to 500 kilogrammes (this will be possible when more powerful explosives are used); but it is essential that the blast effect should remain roughly the same. And I do not want the bomb to explode too easily.

And now in conclusion, gentlemen, something of general importance.

The production programme; the programme which has been prepared is the minimum and every possible means should be used to provide increases. I will give you a few hints.

1. There should be extensive substitution of those materials which are in short supply, and problems of design connected with these shortages should be solved quickly.
2. There should be a radical reduction in the number of pieces of equipment which are used for the same purpose (paying special attention to auxiliary equipment).
3. There should be clarity in design, so that modifications will be reduced to a minimum.

Let me make something else clear: in future, gentlemen, I shall demand that an aircraft shall be properly finished before it leaves the factory. Things must not be such that I receive an aircraft from you and then have to set about building in odd pieces at various points. That only leads to all sorts of hocus-pocus, and that takes us back to conjuring again. When it leaves the factory, an aircraft must be complete. It must be able to say "Which front have I to go to?" It used not to be so with tanks either, but alterations were made and eventually tanks were taken out of the factory, and delivered to the Services by rail. Previously tanks were sent to every possible place, where equipment was built in, and so on. So, gentlemen, you will have to get used to the idea that an aircraft must be completely assembled in the factory. That cannot be arranged within a couple of days, but it must be the ultimate target.

You must keep on thinking how you can speed up production. In this direction the Industrierat (Industrial Council) has given most valuable hints and has made specific rules. Gentlemen, you must deliver more, and deliver it more quickly. Whatever happens, we must increase production! The outcome of the war depends on the Luftwaffe. You are responsible for providing the aircraft. It is on you that I must depend in the last resort. From my office I can issue directions, give encouragement and arrange liaison etc., but it is you, gentlemen, who are responsible for an aircraft in all its details - airframe, engine, armament, bombs, fittings and instruments. The Ministry does not solve problems - only you can do that! We can only guide, direct and make demands, but you alone are responsible for production. My Ministry does not produce anything, and it should not produce anything. That is not its

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job. I should only alter this view if I felt that industry was no longer capable of doing its duty. But in that case, gentlemen, you would no longer have the right to work on the basis of private enterprise. If the state must take over responsibility, including responsibility for production and design, then there is no room for private enterprise, and we shall take the whole thing over completely. The decision to leave the initiative in the hands of private enterprise can only be justified by results.

Gentlemen, you know that there are many ways of running an industry; first of all there is Communism, a system which is not so bad (for you will not be able to deny that in Russia, at least, Communism has been able to build up a gigantic production); you on the other hand are quite small fry. In comparison with the Soviet aircraft industry, you are a collection of small workshops. There is no private enterprise there, and yet an enormous air force has been built up.

Secondly, there is State Socialism. We could do things that way, too. When I discuss this question - not only with you, but with industry generally, I am told: "Yes, but if the state takes over with its bureaucracy and bureaucratic ways, then all sense of initiative is lost" Gentlemen, first of all you have in your industry a bureaucracy which will stand comparison with the state's bureaucracy. At the most, it is only surpassed by the military bureaucracy. But otherwise, the bigger your industry has grown, the more bureaucratic it has become! So you cannot pretend that you know nothing of bureaucracy.

But it is always said: "Private enterprise is effective, it alone can do the job!" Gentlemen, you retain private initiative and I am prepared to do everything possible. When something is achieved, I am the first to recognise it, and if it is a real achievement I am prepared to pay a royal reward. I cannot offer you more. You must either prove that it is right that private enterprise should flourish and that we were right to build our industry on the basis of private enterprise (I shall have to judge that by your results), or you must not think ill of me if I choose another arrangement. There would have been no Hermann Goering Works if it had not been for some short sighted individuals who calculated that not much would be produced, and then told me that the idea was impossible. So I showed them that it was possible, I gave the gentlemen a year to work things out by private enterprise. When they did not do that, and after a year had passed, I declared that they had no right to be in control. I took the matter out of their hands. Then the state took over, and did the job well! Therefore, it is not true that the state cannot do the job. It has done many things well, and unfortunately Communism has done best of all. It is a great pity, but it is so.

Naturally Communism could only achieve this by imposing upon the people a standard of life as low as that of the animals; that is contrary to our philosophy, and we do not intend to work in such a way that we should not produce a single hairpin or pencil, but only aircraft and tanks, at the same time forcing everyone to work. But nevertheless I have to find an answer! And the worst is that the Russians do not build badly. You have contributed in some way to this end. I wish you had spent more time making more developments here! But there was a time when no one could do enough - even the aircraft industry could not do enough - to help the Russians. Now you are in a mess and you can see how we shall have to settle with the Russians. It is plain to me that they would never have been able to achieve what they have from their own resources. The greatest achievement of this modern Genghis Khan is that he managed to make his comrades sufficiently technically minded to be able to get round their problems at least to a certain extent.

And yet they are not good! When I read that we have had two or three thousand aircraft in action during a day and have only lost two of them I am astounded - especially when 118 or 120 of the other side's aircraft have

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been shot down. Fortunately, we are superior to them man for man. But they do possess a long range bomber which they can operate. It does no more than fly, because the aircrews are of poor quality, but it does cause some disturbance in Berlin. The wretched old thing flies at 9 - 10,000 metres. The TB 7 flies at this height, hovers around, drops its bombs in someone's back garden (perhaps they sometimes hit the Ministry here - I don't know) and then it flies off. We cannot shoot it down, and that is unpleasant. That is what I call a long range bomber; it flies from Moscow to here, and then flies back again. Where have you such a bomber? Moreover, it can fly the whole distance at a height of 10,000 metres, if it wants to. Where, I ask, is your equivalent?

(Interjection.)

- The Fokke-Wulf is a small auxiliary bomber; it is a converted civil aircraft, but not a bomber! So again I ask, gentlemen, where do I possess such a bomber?

The British, too, fly in to amazing distances, and they can even carry a lot of bombs at the same time. I am of the opinion - and the enemy seems to agree with me - that the expenditure is too great for the four-engined aircraft to be used as the normal bomber, even if it is available in the necessary numbers.

Gentlemen, for many years I have wanted to get you together as you are today, to speak to you personally, to tell you the issues which are at stake. But I do not want to say only unpleasant things; I should like to add that in general the achievements of recent weeks - in production and so on - have been astounding. I should like to refer to Heinkel in particular; the way you picked up after the attack was splendid. Other firms too have done remarkable things, and I am convinced that they will continue to do so. As I have said, in the past you have always been in the lead with your aircraft. After all, the Me 109 still holds its ground, and was unsurpassed until recently. But we must not rest on our laurels, you must take another step forward. And then the Ju 88; the enemy has no bomber of his own to compare with it - he does not possess one. He has not a twin-engined bomber like the Ju 88 or the Do 17. The aircrews are very satisfied with them. There still remain a few small points which are of great importance, like the business of flame damping. But now, I am told, you have devised something for the Do 17, which only involved a loss of speed of 15 kilometres per hour.

(Interjection.)

- No, they swore it on oath; people should not keep repeating such nonsense to the Fuehrer.

(Fieldmarshal Milch: Then they will not be able to retain the de-icing gear or be able to heat the cabin. As soon as winter comes there will have to be modifications. It is a solution which has been known to us for a long time.)

- That may be an isolated case. You should not assume in advance that the Services will not be able to find some answer; they will think of something.

(Fieldmarshal Milch: We always ask them what they require, and what they think. There exists a good basis of cooperation.)

- You always assert that there is trouble when you make alterations.

(Fieldmarshal Milch: It is often dangerous; that is why we have had so many losses.)

- More losses can be attributed to the fact that we have had to fly with those rotten engines. There was the 801; before we made a decent job of it, it

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was criminal to let men fly such a foul thing. For a long time I was annoyed with the 801, and don't let anybody think that I am satisfied with it now. I shall always think it is a rotten engine. I hope something will be made of it. But it does not even approach what I demand of an engine. So do not draw any wrong conclusions, just because it is no longer as wretched as it was to begin with.

The same applies to Daimler - Benz and the things they paste together. They will not earn any bouquets from me, I can assure you. They may look fine when on show, especially when they are split down the middle so that you can see what they are like, but they are impossible for use in aircraft. The chief designer cannot always be available when anything goes wrong. The only alternative is that I should use a fitter who knows his way around such a confused piece of work. We must quickly reach the point when an average decent fitter can repair an engine. It should not be that a man hasn't any idea where to begin. I asked the men what they thought of it, and they replied: "We can take some things out of the front, and get at others from the back, but when something in the middle goes wrong, we have to dismantle the whole affair!" Everybody knows that on an aircraft's return the valves and plugs must be taken out. But with this thing, you cannot even take out all the plugs. So what am I to do? We should be so far advanced, gentlemen, that the men at the front do not have to risk their lives to make these engines what they should really be. It is only when losses are suffered that there is the right spirit of urgency, and most of the losses arise (I can give you this in writing) because the men have been saddled with such engines.

The Me 210 is such an aircraft that I have ordered that there shall be written on my epitaph: "He would have lived longer if the Me 210 had not been produced!" We have lost four of these Me 210s in a row. I will have the aircraft flying the same distances over Germany as it has to fly when it goes to England; the same conditions shall apply and we shall see what is the matter. Gentlemen, you have no idea how simple things can drive another nail into my coffin. I should be able to live very much longer if I did not have that particular worry. Once again I must thank you for what has been done, and I would most urgently remind you that the situation is serious. I am convinced that one day the Americans will confront us with production figures which will blind us. I must be in a position to inflict such heavy losses on them at their first attempt that they will stop and think twice, in spite of their production potential. They may be able to produce masses of aircraft, but they cannot produce the crews. Therefore we must have day and night fighters which will inflict such punishment that the enemy's losses in aircrew personnel will be so high that he will no longer be able to go ahead with his plan to burn the cities of Germany one after the other.

#### A.H.B.6. Distribution

Same as for Translation VII/75