

Brennschluss

A Play by Patrick M Brennan

FINAL DRAFT

20 February 1984 / *ported* 24 February 2001

Printed : 20 September 2003

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Cast of Characters

(*In order of appearance*)

DOCTOR WERNHER VON BRAUN, a rocket engineer
DOCTOR KLAUS REIDEL, his friend and colleague
ERNST STEINHOFF, a young engineer
HEINRICH GRUNOW, a veteran mechanic
COLONEL WALTER DORNBERGER, the director of the secret German rocket laboratory at Peenemunde, and engineer
COLONEL DORNBERGER'S SECRETARY
ADOLF HITLER, leader of Germany
GENERAL WALTER BRAUCHITSCH, Army Chief of Staff
DOCTOR GENERAL KARL EMIL BECKER, Chief of Army Ordnance and Professor at the University of Berlin

This is a work of historical drama. It differs significantly from the facts of the past as I understand them from my sources. Adolf Hitler and Wernher von Braun met in March 1939, but the precise date varies among my sources. I have taken the date as 12 March 1939, and I have also decided (as one account tells it) that the fateful events here dramatized occurred on Doctor von Braun's 27th birthday. My tampering with history is not restricted to the temporal; all my sources agree that the Fuhrer visited the Kummersdorf West artillery range, and not in fact his more famous rocket laboratory, which he apparently never saw. I have instead found it more convenient to bring the dictator to Peenemunde. The characterizations herein are almost entirely my own invention.

Synopsis of Scenes

The entire action of the play takes place at the secret German rocket laboratory Peenemunde, on the shores of the Baltic, on 12 March 1939, three days before the German invasion of Czechoslovakia.

ACT ONE

Scene One: A drafting room, very early in the morning.

Scene Two: Colonel Walter Dornberger's office, a little later.

Scene Three: An assembly shed, late morning.

Scene Four: A laboratory, before lunch.

ACT TWO

Scene Five: The mess hall, lunchtime.

Scene Six: The mess hall, after dinner.

Scene Seven: The assembly shed, late at night.

PREFACE TO PORTED VERSION

This script represents my first attempt at writing a play. I wrote the first draft of this play in 1983. I wrote the performance script on a Commodore 64 computer, and printed it out on a dot-matrix printer. I never ported the script to another computer system. I lost all my Commodore-based files when I switched to using IBM PCs, and so all I had of the original performance script was on hardcopy. In October 1998, I scanned the old performance script and performed an Optical Character Recognition in order to recover the text into machine-readable format. In those cases where the script was modified for performance, I have maintained the modifications as written in the script. Some errors arising from the OCR process may still be in this script, though I have taken great pains to eradicate them.

The only changes to the original script are cosmetic enhancements (e.g. stage directions appear in italics). I have not made any material changes to this script or its original introduction, though I admit the temptation was great.

INTRODUCTION

Writing is a process of discovery, and it is often as much a process of discovery of self as one or discovery of the world at large. In the course of researching and writing this play, I have discovered many specific things about the men and women of a laboratory on the shores of the Baltic on the eve of World War Two. I have discovered many more things about tinkerers and poets and dreamers (including one who is now typing this page) in general.

Consideration of the facts of the laboratory known as Peenemunde brought out questions that were interesting to me, and which initially drove me to begin writing this play. Who were the people who created the A-4 rocket (better known to us as the V-2)? What drove these people to create an entirely new technology, a new means to wage war, and a hideous weapon, for such as Hitler? How did gentle and intelligent and sensitive people create a machine which ultimately destroyed thousands of lives, and more importantly, laid a technical base for the development of weapons which now threaten millions of lives?

The decision to develop the A-4 was made sometime around the day whose events I have here dramatized. It was not Wernher von Braun's decision to make, though he was instrumental in persuading the decision-makers. As technical director of Peenemunde, he was the undisputed head of the scientists and engineers at the rocket laboratory. The impetus behind the A-4 project was largely his, and its success largely the result of his intellect, his enthusiasm, and his charisma. Without his considerable talents, the A-4 may never have flown. Why did he give his talents so readily and so enthusiastically to the construction of such a fearsome weapon?

In the course of trying to find answers to these questions and preparing to write this play, it has become increasingly clear to me that there existed not a single moral justification for what was created at Peenemunde under the circumstances that prevailed. What was done was simply evil, and the creators of that evil must have known it. Yet I cannot (as evidenced by the existence of this script) dismiss the scientists and engineers of Peenemunde so readily. Though there be no moral justification for the development of the A-4, I have come to believe that the decision to do so was an act of courage.

I have often asked myself, as I imagine playwrights do when thinking about their characters, or historians when considering figures from the past, what I would have done were I in von Braun's place. I reply, against reason and conventional morality, that I hope that I would emulate his courage. This play is my tribute to his courage, his dream, and to him.

ACT ONE SCENE ONE

There was a time - - and very recently - - when the idea of the possibility of learning the composition of the celestial bodies was considered senseless even by prominent scientists and thinkers. That time has now passed. The idea of the possibility of a closer, direct, study of the universe will today, I believe, appear still wilder. To step out onto the soil of the asteroids, to lift with your hand a stone on the moon, to set up moving stations in etherial space, and establish living rings around the earth, the moon, the sun, to observe Mars from a distance of several tens of versts, to land on its satellites and even on the surface of Mars - - what could be more extravagant ! However, it is only with the advent of reactive vehicles that a new and great era in astronomy will begin, the epoch of a careful study of the sky ... The prime motive of my life is to do something useful for people. That is why I have interested myself in things that did not give me bread or strength. But I hope that my studies will, perhaps soon but perhaps in the distant future, yield society mountains of grain and limitless power.

- - K.E. Tsiolkovsky, 1912

The stage is very dark and there is no sound from it. Distant thunder rumbles menacingly for a very long period of time after curtain. Stage lights come up very slowly as the lightning fades.

There is only a glow above a drafting board. It is very early in the morning at the secret German rocket laboratory known as Peenemunde. The very soft, faint sound of rain on metal filters down from above, as it will throughout the play. Doctor WERNHER VON BRAUN and Doctor KLAUS REIDEL are working on yet another of their ideas, although this work is somewhat less official than their work for the German Army.

von Braun is young, with broad shoulders and aristocratic features, and his ambition shows on him as readily as his ancestry. He is bright, open, and extremely self-assured. He is also a moderate smoker.

Klaus Reidel is older than his colleague, perhaps in his late forties or early fifties. He was already a leading researcher in rocket technology when von Braun was an undergraduate student at the ETH in Zurich, but since that time he has been increasingly living

in the shadow of von Braun's technical genius. Unlike most of von Braun's colleagues and potential rivals in this field, Reidel seems to have accepted the situation. In fact, the two have become relatively good friends. Reidel is a deliberate man, and though he is not necessarily a quiet man, he is not prone to the theatrical style of engineering that von Braun practices. He is very German, and conservative by nature. He does not possess the younger man's charisma, but the two can follow each other's thoughts easily. Von Braun knows the importance of someone on his own level with whom he can communicate.

Reidel is perched over the drafting board, sliderule in hand, and von Braun looks at the work from over his colleague's shoulder. They appear to be calculating.

VON BRAUN

Now add that to the Earth's escape velocity.

REIDEL

Yes, all right.

VON BRAUN

And double that for the return trip. We don't want to leave our intrepid explorers stranded in orbit!

REIDEL

Certainly not! ...All right, I've doubled it.

VON BRAUN

That's it. Now calculate the mass ratio we'd need with, say, three times the exhaust velocity of the A-3 engine.

REIDEL

That's e to the ...Hmmm.

VON BRAUN

(*Triumphant*) That is certainly a long way from our years at Rocket Field Berlin, don't you think so? Would you say that is within the realm of engineering feasibility?

REIDEL

A long way, indeed. I would say that the moon is within our grasp. (*He is struck with a sudden attack of engineering conservatism*) Assuming that we already have a spaceborne platform to launch from.

VON BRAUN

Of course any journey to the moon will commence from earth orbit. I cannot imagine any reason to do otherwise.

REIDEL

The moon! Within reach of man! The idea stirs the imagination.

VON BRAUN

And the planets are only a step away from the moon. I know today that we will live to see men among the planets. The proof is before you.

REIDEL

Delivered to man from the hand and mouth of Doctor von Braun, the secrets of interplanetary flight! I think I know why the good doctor whispers these secrets into our collective ear.

VON BRAUN

(*Smiling*) Why is that?

REIDEL

He wants the explorers who follow us, the Magellans and Columbuses of planetary space, to remember him, to hallow him, to write his name in phosphorous across the sky ! (*laughs*)

VON BRAUN

Or course! And so do you, Klaus. You want the name of Reidel in phosphorous right next to mine! ...well, perhaps a bit below mine.

REIDEL

Tsiolkovsky, Oberth, Valier, Goddard, and now von Braun. You're in good company. (*pause*) Honesty becomes you, Wernher. You shouldn't really pass yourself off as a crusader working for the greater glory of the human race and the Third Reich. You are after personal glory.

VON BRAUN

And so are you, my excellent friend. And so are the rest of the engineers here. And so is everyone else in the glorious Third Reich, right up to the little corporal who runs it all.

REIDEL

Are you very nervous, Wernher, about meeting him tomorrow?

VON BRAUN

(*Consulting his watch*) This morning.

REIDEL

Of course! Oh, Happy Birthday.

VON BRAUN

Thank you. And yes, I think I may admit to some anxiety about meeting the Fuhrer.

REIDEL

And what do you intend to talk to him about? Do you intend to prove to him as well that it is possible to put men in lunar orbit?

VON BRAUN

I may.

REIDEL

You, Wernher, are a young fool. It would be a wonderful birthday gift to yourself if the Fuhrer decides that you are a space happy crackpot. I hope you are still working here tomorrow. I hope I am still working here tomorrow!

VON BRAUN

You hope I may excite his imagination. He is an imaginative man. (*He picks up the sheet of calculations and waves it for emphasis.*) Rockets are no longer toys, and they are no longer curiosities. They are vehicles, and they may transport us wherever we wish to go. Even to the moon.

REIDEL

Or they may transport our bombs - - to France, perhaps.

VON BRAUN

If I am a young fool, Herr Doktor, then you are merely an older one. I don't need any of your pessimism.

REIDEL

I prefer to think of myself as a realist. (*indicating the sheet of calculations*) Sometimes. The armies of the Third Reich are massing. I'm not at all sure that he plans to stop with the Sudetenland. I think perhaps he is planning something more dangerous.

VON BRAUN

You are a bundle of ancient nerves. The armies of the Third Reich have been massing for six years. Stick to engineering and keep yourself out of fanciful examinations of politics.

REIDEL

This is not politics.

VON BRAUN

Or course it is. Nobody wants another Great War, especially not the Fuhrer.

REIDEL

Well what he wants certainly isn't a moon rocket - -

Enter ERNST STEINHOFF, the youngest and newest of the engineering staff at Peenemunde, and with him HEINRICH GRUNOW, a seasoned veteran of the workshop and the 'genius mechanic' of the Laboratory.

It is unusual that such different men could be such good friends. Steinhoff is directly out of engineering school, idealistic, open. Grunow is a man who works with his hands, a practical man minus most of the disdain that 'practical' men are supposed to have for the theoreticians that comprise the bulk of the Peenemunde staff. No doubt a good portion of the binding force between Grunow and Steinhoff is the charisma of von Braun. Grunow was working without pay for the Verein fur Raumsfiffahrt (VfR, the Society for Space Travel) in the early thirties when von Braun, a founding member, was relatively undistinguished outside of that small group of dreamers and tinkerers. He has learned great respect for the engineer. Steinhoff feels something closer to reverence, for von Braun was responsible for his employment in the first place, under highly unusual circumstances.

As the pair enters, Grunow talks over Reidel's previous line.

GRUNOW

Good morning, gentlemen. It certainly is surprising to see you two hard at work at this hour of the morning.

VON BRAUN

Good morning, Heinz; and why is that?

GRUNOW

(*Playfully*) Because everyone knows you important engineers don't wake up until nine o'clock.

STEINHOFF

I'm awake long before then.

GRUNOW

Then you haven't learned everything about engineering yet. Stay close to these gentlemen. They'll teach you everything you need to know.

REIDEL

Good morning, Steinhoff, Heinz. Why are you two down here so early in the morning?

GRUNOW

He couldn't sleep. Fancy that.

STEINHOFF

(*Embarrassed, trying to explain*) I had an idea about the coolant valves. The fluttering we've been having. I wanted to explain it to Grunow here.

VON BRAUN

I have a better idea. I've just been trying to explain it to Reidel. Why don't you let me explain it to you.

GRUNOW

No doubt you are off on another of your flights of interstellar fantasy.

REIDEL

Of course he is. He would not be von Braun if he were not.

GRUNOW

My entreaties to be practical are wasted on all you engineers, and he (*he indicates Steinhoff*) is no more practical than the rest of you. Now if you all worked honestly for a living - -

VON BRAUN

But Heinz! What would you do for a living if not for us to supply you with impossible problems to solve?

GRUNOW

I would be working honestly in an obscure village in Austria, obscure myself and happy and not arguing with engineers. And not having to worry about protecting my machines from all the boors that will be tagging behind the Fuhrer.

REIDEL

I am sure that your excellent protection will be more than adequate. Come, Wernher. Let's take an early breakfast.

Exit von Braun and Reidel.

STEINHOFF

Happy Birthday, Wernher!

Steinhoff and Grunow set to their real purpose at the drafting room as the lights fade to blackout.

GRUNOW

All right, he's out of earshot. Now what do you have for his birthday gift?

Grunow laughs in the darkness.

SCENE TWO

Colonel WALTER DORNBERGER's office, a little later. Colonel Dornberger is seated behind his desk as the lights come up. Dornberger is closer in age to Reidel than he is to von Braun, but he shares a closer intellectual and personal relationship with the younger engineer. The colonel himself is a rocket engineer, but in his mind this is clearly subordinate to military priorities. Physically, the colonel is not as remarkably trim and broad-shouldered as von Braun. His face and expression are deliberate and serious, although the colonel is given to occasional warm smiles and bursts of genuine humor. VON BRAUN knocks politely on the door and enters.

VON BRAUN

Good morning, Walter.

DORNBERGER

Ah, good! I was hoping to see you sometime this morning before the Fuhrer arrives.

VON BRAUN

Is he due soon?

DORNBERGER

He was officially scheduled to have landed already. Perhaps it is the weather that is holding him up.

VON BRAUN

Perhaps. It is raining in Berlin as well. Is he bringing anyone else with him?

DORNBERGER

Yes, of course. Our good friend and your mentor General Becker, Chief of Army Ordnance - - I don't think he'd miss this demonstration for anything - - ; and General Brauchitsch, the Army Chief of Staff.

VON BRAUN

It will be good to see Professor Becker again. And the usual minor officials?

DORNBERGER

Of course. So: are the rocket demonstrations prepared?

VON BRAUN

Yes, very nearly. Two static firings, one of six hundred pounds thrust, one of twenty-two hundred pounds thrust. THAT should blow off the Fuhrer's ears!

DORNBERGER

Perhaps not. If you remember, he was an artillery officer during the war. He is used to the noise of the big guns. If you expect to impress him with big noises, I think you may expect wrongly.

VON BRAUN

I've also had a model of the A-5 rocket made up, with the interior exposed, so that I may explain the inner workings of the rocket to the Fuhrer. I'm told he is a mechanically inclined man.

DORNBERGER

(*Smiling*) Good, very good. I'm sure that will please him very much.

VON BRAUN

(*Brashly*) This is a very important day. I feel good today! I feel that we are on the verge of a major victory. Today, we can win the Fuhrer over to rocketry.

DORNBERGER

Indeed. This is an important day. Don't forget, though, that today is also a very risky day.

VON BRAUN

I know, Walter.

DORNBERGER

(*Not sure he is making his point*) The Fuhrer holds the power of life or death over this project. A stroke of his pen could as easily cut our fiscal throat as it could double our funding.

VON BRAUN

Well, I feel only optimism about this day. We are an enthusiastic group; how can we not infect him with our enthusiasm? I know that he will be pleased with our work; and while I'm certain he won't double our funding, I'm just as certain he won't cut it.

Pause.

DORNBERGER

I'm glad that you brought up the subject of enthusiasm, Wernher. It's the very thing that I wanted to talk to you about.

VON BRAUN

(*Jovially*) Really. I always suspected that I had enough. Have I been slacking off lately?

DORNBERGER

Hardly. (*Pause*) Wernher, your enthusiasm for rocketry and space travel is unmatched anywhere in Germany. I think instead our problem - - now let me put this to you delicately - - is rather too much enthusiasm.

VON BRAUN

Too much enthusiasm?

DORNBERGER

Wernher: I know that you are here at Peenemunde because your primary interest lies in the possibilities the rocket seems to hold for space travel. Unfortunately, not everyone appreciates your noble dedication. Consider the position we're in today. We are being visited by the most important man in Germany! Let's not underestimate the risks involved. You and me and the rest of the engineers here may or may not have our jobs tomorrow, depending upon how impressed the Fuhrer is when he leaves today. The entire future of rocket research in Germany is hanging in the balance. I know that means different things to each of us, but I can't let you officially forget that Peenemunde is still primarily a military installation.

VON BRAUN

(*Stiffly*) I haven't forgotten, Colonel. Officially or otherwise.

DORNBERGER

Wernher, all I'm asking is that just for today you get your head out of orbit and keep it down here. I'm a military man. So is the Fuhrer, and most of his aides. When they put me in charge of this operation, I was not interested in calculating the sixth decimal place of a transfer orbit to Venus or the cabin pressurization of a Mars ship, and I'm still not interested. I am interested in forging a new form of practical artillery; and it doesn't really matter to me that you are less interested in artillery than you are in space travel . You agree, I hope, that our partnership has been profitable to both our interests?

VON BRAUN

Yes, of course.

DORNBERGER

Good. What I'm asking is for the good of both our interests. I don't mind the amount of time and thought you devote to your space travel ideas. But artillery is the only thing that the Fuhrer is investigating today, not your grandiose space dreams.

VON BRAUN

Yes, but suppose we can spark his imagination - - he's an imaginative man.

DORNBERGER

He understands gunnery, not astrophysics. Planes and tanks excite his imagination - - not spaceships!! He's not a scientist, and neither are any of his staff.

VON BRAUN

Professor Becker is.

DORNBERGER

General Becker is more practical than you. He knows that space vehicle research isn't all that legitimate. He knows that it wouldn't sit well with the Fuhrer if you decide to talk to him about your space travel plans. Wernher, please! if the Fuhrer decides that we are working on crackpot schemes instead of practical military research, he will certainly cut our funding or stop our work here altogether.

von Braun considers for a while in silence. Finally, he concedes to Dornberger.

VON BRAUN

I understand, Walter. No talk of space travel today, not with the project at stake.

DORNBERGER

Thank you, Wernher.

Colonel Dornberger's SECRETARY appears.

SECRETARY

Colonel? The Fuhrer's plane is landing.

DORNBERGER

Good. Thank you.

Exit secretary.

DORNBERGER

Well. Let's go meet the Fuhrer, shall we?

Exit von Braun and Dornberger as the lights fade to blackout.

SCENE THREE

The lights come up from blackout slowly. We see an assembly shed at Peenemunde. A half-scale model of the A-5 research rocket dominates the room. The model has slits and holes cut into its skin to expose its inside workings, which are color-coded to indicate related components. As the lights come up, von Braun is explaining the research missile to ADOLF HITLER, who has been in power for some six years now. Hitler is not a tall or imposing man, but his personality can overwhelm as surely as physical stature. He does not intend to overwhelm today, however. Today his thoughts are far away. He is accompanied by General WALTER BRAUCHITSCH, the Army Chief of Staff, and by Doctor General KARL EMIL BECKER, the Army Chief of Ordnance. In contrast to the studied elegance of their dress uniforms, Hitler wears a tan overcoat over an ordinary suit; and in contrast to their obvious delight and interest in von Braun's explanations, Hitler seems strangely detached. Grunow and Dornberger are beside von Braun. Grunow looks on with satisfaction.

VON BRAUN

(*pointing to components as he talks*) These are the batteries. They supply the necessary electrical power for the operation of the control system and the instrumentation. Right underneath the batteries is the gyro-stabilized platform and three rate-damping gyroscopes which control the servomotors. The gyro platform carries an acceleration-sensitive device for measuring and correcting any wind-induced deviation of the rocket from its course. Next, here is a watertight compartment containing a barograph, a thermograph, and a small motion-picture camera for photographing the readings of these two instruments during flight.

HITLER

How do you recover the film?

VON BRAUN

After reaching the maximum altitude, a parachute is ejected - - automatically - - and the missile descends quite slowly and falls into the ocean, where it floats so we can pick it up. Usually it is only slightly damaged.

Von Braun continues to explain the research missile, after waiting for some kind of acknowledgment from the Fuhrer and receiving none. Over the course of von Braun's next speech, Hitler will be talking to General Brauchitsch.

VON BRAUN

Also inside the instrument compartment is a thermometer that we use to record the skin temperature of the rocket during flight. This instrument (*he points toward another*) allows us to check the rocket engine's actual chamber pressure against our predictions and if the rocket deviates too far from its course, this radio receiver can cut off the engine on an emergency signal from the ground. (*long pause*) Beneath the instrument compartment is the liquid oxygen tank, and beneath that is the propellant tank. Although the tanks are constructed of an extremely light alloy, they can withstand a pressure of almost three hundred pounds per square inch. Between the two tanks, you can see the parachute container.

Over the preceding speech by von Braun, Hitler confers briefly with General Brauchitsch:

HITLER

Well, you have had your way. Must I have come here? Don't I already have enough on my mind?

BRAUCHITSCH

But this is a powerful new tool. This will be the weapon to utterly crush any potential foe. With this we can leap over conventional artillery, infantry, navies, and strike at the enemy's heart! My Fuhrer, this is the future.

HITLER

(*Softly, but hotly*) I am the future! (*pause*) we have the Sudetenland. But I am not satisfied. In three days' time, we shall march into Prague, and all of Czechoslovakia will be ours. This might push the Western politicians over the edge; this might cause another Great War! There is much to be considered; and at such a time as this, I must go see some technical experiments!

Hitler walks slowly around the missile as von Braun continues.

VON BRAUN

And of course, directly underneath the fuel tank is the rocket engine itself. There is a liquid nitrogen reservoir built into the oxygen tank here. This is fitted with an immersion heater here which serves to keep the fuel flowing under high pressure and at the right proportion.

HITLER

Tell me about the performance of that engine.

VON BRAUN

(*All too eagerly*) The rocket engine develops a thrust of one and a half tons, with a maximum exhaust speed of nineteen hundred meters per second for a period of forty-five seconds.

Hitler thinks about that for a moment, then turns and walks away from the missile, shaking his head. He turns abruptly to von Braun:

HITLER

I still don't understand what makes a liquid-propellant rocket fly. Why do you need two tanks and two different propellants?

Von Braun eyes the Fuhrer with astonishment, and haltingly starts from the very basics of rocket propulsion. He is walking a thin rope, for he cannot make the Fuhrer out to be a fool but it is obvious that the Fuhrer does not understand even basic principles.

VON BRAUN

The rocket, of course, will work in the absence of air. That is, it does not use the atmosphere's oxygen for combustion as does any other engine, like an automobile or an aircraft engine. The rocket carries the oxygen with it in the oxidizer tank.

HITLER

But why is that? Why not use gasoline or diesel fuel and some kind of carburetor system, utilizing the oxygen in the ambient air?

VON BRAUN

That has been done, sir. That type of engine is called a pulsejet. But the pulsejet is limited to relatively low velocities where the missile - - can be shot down by flak artillery or fighter aircraft. The main advantage of rocket propulsion is that the missile travels at a very high speed - - even though the motor functions for only a very brief time. And since the missile follows a ballistic flight path, like a cannon ball, the greater the initial speed, the farther the missile will go. The final speed of a rocket after brennschluss depends directly on the ejection speed of the exhaust - -

HITLER

You used an unfamiliar term. What is brennschluss?

VON BRAUN

I am sorry, sir. Sometimes I forget myself. Brennschluss occurs when the engine stops burning, usually because of a sudden drop in fuel pressure. When Brennschluss occurs, the missile is traveling at its fastest. And as I said before, when Brennschluss occurs, the missile is ballistic - - nothing can alter its course any more. Of course, it will find its target if it was well-aimed in the first place.

Von Braun pauses for a while to let the Fuhrer understand; getting no reaction, he continues.

VON BRAUN

If I may, I was talking about the relationship between the speed of the rocket and the speed of its exhaust. Merely doubling the exhaust speed will double the speed the same rocket can reach,

thereby quadrupling its range. It is important to understand that a rocket, in order to attain high speeds, must carry and burn propellants many times its own weight. But, of course, the rocket-powered missile is the only large projectile that can attain supersonic velocity and reach extremely high altitudes or great ranges. When such a ballistic rocket missile falls back to earth, its impact effect alone - - even without a live warhead - - will be tremendous.

*Hitler thinks about this for an uncomfortably long period of time.
Finally, he turns back:*

HITLER

What kind of payload can this missile carry?

VON BRAUN

The A-5 missile is strictly a research vehicle. It could not carry any military payload to speak of, but the thorough experimenting that we have conducted with the missile certainly indicates that larger rockets capable of carrying substantial warheads can be built.

On this, the stage lights abruptly black out.

The following points may be deemed of decisive significance in the history of technology: we have invaded space with our rocket and for the first time - - mark this well - - have used space as a bridge between two points on the earth; we have proved rocket propulsion practicable for space travel. To land, sea, and air may now be added infinite empty space as an area of future intercontinental traffic.... This third day of October, 1942, is the first of a new era in transportation, that of space travel....

-- Walter Dornberger, after first test firing of the V-2 missile.

SCENE FOUR

A laboratory, before lunch. Reidel and Grunow are good-naturedly discussing the Fuhrer's visit.

GRUNOW

Engineers and politicians. And generals. You're all the same.

REIDEL

Oh, what are you grumbling about, Heinz? Or are you merely practicing?

GRUNOW

To think that I entertained thoughts of getting some useful work done today! No, that was a foolish idea. With the Fuhrer all about the place, there's not much at all to do, save keeping curious hands off of expensive equipment.

REIDEL

Aha! He reveals himself! The genius mechanic wants his machines all to himself. (*slyly*) Perhaps you are resentful that your beloved Fuhrer interrupts your work by paying us a visit.

Grunow shoots Reidel a ferocious look.

GRUNOW

Hardly. I have no objection at all to the Fuhrer paying us a visit. I have strong objection to his entourage of minor officials whose curiosity dwarfs their educations. Do you know, one of them has already broken a fuel pump - dropped it, right onto the ground! Why should the Fuhrer invest millions of marks into our rockets, only to have them mistreated by such imbeciles!

REIDEL

Don't worry, Heinz. Tomorrow your precious rockets will only be handled by professionals again.

GRUNOW

That's right - tomorrow they will only be mistreated by the imbeciles that are paid to mistreat them.

REIDEL

(*Grinning*) But Heinz, I'm sure that I can persuade Wernher to remove you from the payroll.

Enter Ernst Steinhoff.

GRUNOW

(*Grinning now in spite of himself*) I'm sure I wouldn't at all miss the pfennigs I'm being paid anyway. To work miracles on your so-called rockets. They're probably paying this young upstart more anyway. (*indicating Steinhoff*)

Steinhoff does not react to Grunow's indication of him, but remains silent and serious.

GRUNOW

Klaus, have I ever told you how this youngster got his job here?

REIDEL

(*Shrugging*) I don't imagine he got his job in any different way than the rest of us.

GRUNOW

Ho, are you ever mistaken, isn't he, boy?

Steinhoff smiles slightly, but does not otherwise react.

GRUNOW

(*To Reidel*) I think he's just embarrassed. Well, I'll tell you, if he won't. Just a few months ago, we were running static tests on twenty-five ton motors -- you remember?

REIDEL

I remember.

GRUNOW

Well, von Braun decided to smuggle little Steinhoff into Peenemunde during one of those tests. To observe, of course. Never mind that Peenemunde is a secret installation. Mere Army regulations were not made to stand in the way of two little boys who want to watch the rockets!

REIDEL

(*Who is grinning at the story*) But I'm sure Wernher intended to hire him anyway.

GRUNOW

Oh, of course; so I suppose it was barely legitimate, But wait, I haven't finished telling my story. You see, after the test proper, Wernher wandered off and left little Steinhoff all alone. But Ernst has too many questions to ask to wait until von Braun returns, or until he can be found again. So of course he walked right up to Colonel Dornberger and began asking about all sorts of rocket things, as though the Colonel were in the business of answering questions from little boy engineers! The colonel nearly had him arrested, but he was smart enough to mention von Braun's name. (*To Steinhoff:*) I'll give you credit for that.

REIDEL

And what happened? Did Wernher get into much trouble?

GRUNOW

Wernher von Braun will never get into trouble. He was summoned to the Colonel, and when he saw young Steinhoff, he didn't even start; he just said, "Oh there you are, Steinhoff"; and then he said to the Colonel, "Colonel, I'd like you to meet the new man on the engineering staff!"

Grunow and Reidel laugh; Steinhoff does not react.

GRUNOW

And that's how Steinhoff got his job here.

STEINHOFF

(*Quietly*) Doctor Reidel, I'd like to talk to you, if I may. (*To Grunow:*) Alone.

Pause.

GRUNOW

Go ahead, there isn't anything else to do today. Excuse me -- I'm sure I've got nothing to do somewhere.

Exit GRUNOW.

STEINHOFF

(*Certainly referring to Grunow*) Nazi.

REIDEL

Watch your tongue. It's not a dirty word any more. (*Pause.*) And not even scientists are allowed to hold the wrong political opinions.

STEINHOFF

Not any more.

REIDEL

That's right. Not any more. At least, not in public.

STEINHOFF

I see that politicians are allowed to hold scientific opinions in public these days.

REIDEL

That's because scientists don't shoot politicians back these days. Take some good advice, Ernst Steinhoff: you are relatively safe here, at Peenemunde, among people who can afford to be tolerant of you. In private. But be careful what you say just the same; and be careful who you say

it to.

STEINHOFF

Thank you, Doctor, for your sound advice.

REIDEL

(*Trying to expedite the conversation*) So; what did you want to talk to me about?

STEINHOFF

I met the Fuhrer today, Doctor.

REIDEL

Most of us did this morning. (*Pause.*) He's a great man, isn't he?

STEINHOFF

Oh, spare me, Doctor! This isn't a party rally in Berlin. I don't want your little Seig Heils. ...I came to ask you a question.

REIDEL

All right.

STEINHOFF

And I want an honest answer.

REIDEL

All right!

Pause.

STEINHOFF

(*Not sure how to begin*) Why are you here? Why did you come to Peenemunde?

REIDEL

Why, indeed? I am a rocket scientist. I am here to work on the rockets.

STEINHOFF

I'm tired of hearing that! It doesn't explain anything. It doesn't explain you and Wernher at work in the drafting room so early in the morning. It doesn't explain Wernher playing up to the Fuhrer the way he is. It doesn't explain the circus we're all putting on for him today!

Pause.

REIDEL

(*Quietly*) I suppose you already know the reason why I'm here at Peenemunde. Why von Braun

is here.

STEINHOFF

Yes, I think so.

REIDEL

We are here for the rockets. We are here for space. We are here because we dream of the planets; and we all want to go there.

STEINHOFF

You don't come out with it in the open very much, do you?

REIDEL

And you have the same dream, Ernst. I know it! ...You know, old Grunow doesn't know how right he is when he calls us little boys. We are, after all. We're here to make all our little boy dreams come true.

STEINHOFF

(*making no mistake who "HE" is*) He's using us.

Pause.

REIDEL

We're using him. We're learning more all the time.

STEINHOFF

To make rocket missiles.

REIDEL

To make space ships!

STEINHOFF

Space ships! Is the A-5 a space ship?

REIDEL

It is a research rocket.

STEINHOFF

It is the parent of a fearsome weapon.

REIDEL

It is also the parent of an interplanetary vehicle.

STEINHOFF

Are you sure that the Fuhrer shares your farsighted vision?

REIDEL

What do you want?

STEINHOFF

Doctor: You must believe me. I'm here for the same reason you are. I want to serve the dream as much as you do. As much as Wernher does. But the Fuhrer doesn't share our dreams. He's got too many of his own.

REIDEL

He is funding ours.

STEINHOFF

Really? I stood by for an hour and watched as Wernher talked about exhaust speeds and mass ratios and inertial guidance; while the generals talked about ranges and accuracies and tons of high explosive to be delivered to the target. And Wernher allowed it! Because he knows that the Fuhrer doesn't want to be bothered with naive dreams.

REIDEL

(*With more emphasis*) He is funding ours.

STEINHOFF

He looks at our rockets, our dreams, and all he can see is their power to destroy! He doesn't know anything about rockets at all. But he does know about warfare. He wants a rocket bomb that he can use, against Czechoslovakia perhaps. He is no more interested in your science than you are in his politics. And he is not funding our force for life, I can tell you that . He is only funding his own implements of death.

REIDEL

(*Mocking Steinhoff*) Oh, to be young and foolish again! The fact remains, young Steinhoff, that he is funding our experiments, regardless of his motives or ours. We are making progress.

STEINHOFF

And how will the rest of the world pay for our great progress? How will it pay for our strides of knowledge?

REIDEL

Listen to me: I was a member or the VfR long before you even entered the University. I launched many crude rockets from Rocket Field Berlin -- no, wait until I'm finished ! -- rockets I fashioned with my own hands, rockets whose descendants we are working on today! We learned everything we could from those old rockets, but there was really only so much knowledge that could be squeezed from them. We needed money to go further, but there was no money, and so for the most part we were consigned to talking long into the nights about our fanciful travels through space. The Army -- this was long before Hitler, you understand -- the Army approached us, von Braun in particular, with the proposals for a laboratory and all the time and money we

needed to pursue our research. You know, for all the engineer he is, I think Wernher's best gift is his ability to sell his ideas.

STEINHOFF

Yes, I know. I just watched a demonstration of his salesmanship.

REIDEL

Without which this laboratory would not exist! Of course we had our doubts about building weapons. But the choice was clear: it was between building what the Army wanted -- practical hardware -- or stagnating in poverty, idly dreaming of expeditions to Venus.

STEINHOFF

Don't you see that we're only betraying ourselves? That we're destroying our dream? That isn't some abstraction in the mess hall with von Braun and the Colonel. That's Hitler!

REIDEL

You still don't understand, do you? We are learning so much here, so fast. To go back to Rocket Field Berlin would be intolerable. If we lose this opportunity, we shall not regain it.

STEINHOFF

So the Fuhrer has tempted you here with irresistible scientific toys and a nice new playground on the Baltic. And of course you shall build their death machines for them.

REIDEL

In a few more years here, we will be able to make a rocket which will fly over a hundred miles high and carry a man. We can do what we never dreamed possible at the Rocket Society. I never dared to dream of going to the moon -- we may be able to do that in ten years, after what we have learned here!

STEINHOFF

How many lives will have to be sacrificed for your dream? How many Czechs, hmm? Tell me, how many Poles or Spaniards or Frenchmen or British?

Pause.

REIDEL

(*Dogmatically*) If we don't carry on the research, someone else will. If we lose this opportunity, we shall not regain it. Hitler will have his missiles regardless of whether we build them. It might as well serve our dream as well as his.

STEINHOFF

So we forget our consciences; in our zeal to achieve space, we leave millions of people as the Fuhrer's cannon fodder -- sorry, rocket fodder. You speak of a rocket that can achieve a hundred miles altitude; such a rocket can travel many hundreds of miles downrange, perhaps to deliver one of the Fuhrer's new atomic bombs on an unsuspecting city!

REIDEL

Atom bombs are pure fantasy.

STEINHOFF

So are space ships. I wager that the Fuhrer will possess an atom bomb within five years.

Pause.

REIDEL

All right then. What do you think we can do?

STEINHOFF

We can stop this insanity. We can leave Germany.

REIDEL

Leave Germany? Are you mad? And even if we could get past the border -- which we can't -- what possible good would it serve? Certainly there are enough talented people here to replace us.

STEINHOFF

They can't replace Wernher.

REIDEL

You are mad.

STEINHOFF

Or you. Remove Oberth, Thiel ... perhaps a dozen men. It will destroy the rocket effort.

REIDEL

What could we do afterwards?

STEINHOFF

There's bound to be support elsewhere. The United States, perhaps.

REIDEL

Why am I listening to your nonsense? You know as well as do that it is impossible to get out of Germany these days!

STEINHOFF

Others have made it. We can as well!

REIDEL

Some others have made it. Most are dead. And none of them started their flight from the midst of a top-security Army installation. I for one have no intention of testing the Army's security, and I don't want to die for your conscience.

STEINHOFF

What if there is a war? What then? How many people will die for your lack of conscience?

REIDEL

(*Angrily*) We've been through that already! I always wondered when some arrogant little bastard of an engineer would come here and lecture us on morality. Well, you're it, Steinhoff. You don't think we've had these thoughts before?

STEINHOFF

What have you done about them, then?

REIDEL

Has the simple thought ever occurred to you to quit the project, to just leave Peenemunde? Of course it has. You could go into private business as an engineer perhaps, or join the Army. Your loyalty would never be questioned, and your conscience would never ache again. Of course, you couldn't work on the rockets any more ... And you dismissed it out of hand, didn't you? You're full of curses for us old engineers and the terrible weapon we're creating, but you're one of us too! And you've yet to offer me a practical solution to your great moral dilemma!

Pause. Steinhoff seems about to say more to defend his idea of leaving the country, but thinks better of it. Finally he brightens with a thought.

STEINHOFF

Hold back, then. Don't be so technically brilliant so often. Introduce delays. If the Fuhrer does not have his superweapon so soon, he is less likely to use it in the next Great War.

REIDEL

And he is more likely to drop our project altogether! Steinhoff, who are we going to fool? The Fuhrer, perhaps. But who else? General Becker? No. Colonel Dornberger? Certainly not. And we have enemies in Berlin. Unreasonable delays will only encourage the enemies of this project to push for its cancellation, and encourage the S.S. to look for political malcontents inside the laboratory.

STEINHOFF

(*Savagely*) And which concerns you more?

REIDEL

What do you think! This project is the culmination of years of work for me. Why must I refrain from my work, why must I endanger my dream, because it can be misused?

STEINHOFF

Because Hitler can misuse it. Because there are hundreds of thousands of people who will be trampled by it. We have an obligation to them.

REIDEL

And who is obligated to me? Why must I bear the burden of Herr Hitler's irresponsibility? You tell me, 'restraint, restraint'; but I'm not getting any younger. I have invested my life into these rockets! Why should I stop now, because the world is ugly? I want to live to see the space ship become a reality!

STEINHOFF

The Fuhrer has a dream too: and he is no less stubborn about it.

Pause. Steinhoff's last point hits home.

REIDEL

I don't know, young Steinhoff. Perhaps you are right.

STEINHOFF

(*Pushing*) Klaus, you must convince Wernher. He is the key. He can persuade the others. And he is their foundation stone. Convince him, and the entire structure collapses to the ground. You must convince him.

Pause. Reidel comes to an abrupt decision.

REIDEL

We did not have this conversation. It did not take place.

Stunned silence.

REIDEL

I'm going to lunch now. (*He begins to move off; Steinhoff begins to follow.*) Alone!

Exit Reidel. Steinhoff is left alone on the stage as the lights fade to blackout.

ACT TWO
SCENE FIVE

The mess hall at Peenemunde, lunchtime. Hitler, Generals Brauchitsch and Becker, Colonel Dornberger, and von Braun are all seated about the table. Hitler has his customary lunch of mixed vegetables and mineral water. Von Braun is still explaining his rocket, as the lights come up, and it is evident that he could be doing better to fan any spark of interest Hitler might be showing.

VON BRAUN

...While an aircraft engine can only run on petroleum, a rocket may use literally thousands of fuel combinations. Many unconventional chemicals have proved promising. A combination of hydrogen and oxygen gives exhaust speeds of as much as four thousand meters per second, which is almost twice the efficiency we get out of our present alcohol-oxygen engines. But liquid hydrogen is still pretty difficult to handle. It is not yet practical to use -- so the exhaust speed is only of theoretical interest. Nevertheless, it indicates that new or better fuel combinations may be developed.

HITLER

(*Not particularly interested*) Four thousand meters per second, hmm? Well, General Becker, does he know what he is talking about? You know about these rockets.

BECKER

And I taught him everything I know, my Fuhrer.

HITLER

What is that supposed to mean?

DORNBERGER

(*quickly*) Wernher here was a graduate student at the University of Berlin under General Becker.

Pause.

DORNBERGER

He distinguished himself as a rocket researcher.

VON BRAUN

(*Modestly*) Professor Becker is an excellent teacher.

DORNBERGER

General Becker had an excellent pupil. Wernher here was his very best, in fact.

HITLER

I see.

BECKER

His work was invaluable to us. Without him, German rocketry would not be where it is today.

HITLER

(*Drily*) Namely, here at Peenemunde.

Pause.

BRAUCHITSCH

Rocketry has made great advances in the past few years, my Fuhrer. Thanks to General Becker and his brilliant protege. Why, right now, we are years ahead of any other rocket project. I daresay we are years ahead of Goddard himself!

von Braun coughs deprecatingly.

HITLER

(*Changing the subject*) You put on an impressive show, gentlemen. But let's be practical for a moment. You say that the A-5 is merely a research vehicle. (*At least partly to Becker:*) It carries no warhead.

DORNBERGER

The A-5, sir, is only a stepping stone. It has served its purpose and we are almost ready to move on to the development of actual rocket missiles. But without the knowledge and experience that the A-5 gave us, such an undertaking would be impossible.

HITLER

(*Impatiently*) Very well then, what is the next step?

VON BRAUN

We have been developing plans for a rocket we shall call the A-4. It is essentially a scaled-up A-5; our primary design objective was to make the rocket easily transportable by rail, easy to handle, and easy to launch.

HITLER

(*Slowly, getting to the point*) What is the rocket's range, and how much explosive can it deliver to the target?

VON BRAUN

The A-4 will be capable of carrying one full ton of high explosives over a distance of one hundred eighty miles.

Brauchitsch is astounded, yet seems happily surprised. Becker and Dornberger seem strangely satisfied. Hitler is showing definite interest.

HITLER

Please speculate, Doctor: Your rocket is in the laboratory and on the drawing boards. How long would it take to develop such a rocket missile, to get it out to the field?

Von Braun and Dornberger exchange looks. Now is the time to get in the all-important play for development money.

VON BRAUN

I am only an engineer, sir. I am not the manager of this project, and I am not a military man. I think that perhaps Colonel Dornberger should answer your question.

DORNBERGER

(*Slowly and deliberately*) With our present level of effort, and at our present budgetary support, it will take considerable time.

Hitler answers with only a brief nod. The lunch continues in silence for several moments. Then the Fuhrer breaks the silence:

HITLER

(*To von Braun*) You might be interested, Doctor, in knowing that I was once a friend of Max Valier in Munich.

VON BRAUN

Indeed?

HITLER

Indeed. In fact, I got to know him very well. He was the first man to tell me what the prospects of the rocket truly were.

VON BRAUN

I am glad to hear that, sir. Max Valier is a great scientist and a pioneer in the field of rocket propulsion.

HITLER

(*With an odd satisfied air*) As far as I am concerned, the man is a dreamer.

There is a moment of tension between Dornberger and von Braun. The young engineer seems about to start to defend Valier and give the Fuhrer a briefing on space flight, but Dornberger's look is enough to keep him in his place. The colonel lets von Braun know

that he will try to handle the situation more diplomatically.

DORNBERGER

Well, of course space travel is a very long way off. We are, after all, only at the very beginning or rocket development, and its present stage corresponds with the first steps in aviation. Oberth, Valier, Goddard and others will be to space travel what Lilienthal and the Wrights are to the airplane -- or Zeppelin to the airship. Both of these technologies reached their present stage only after a long period of extensive development.

HITLER

I do not consider the airship to have been a great invention.

DORNBERGER

Have you ever been on board one, sir?

HITLER

(*Finally*) No. Nor shall I ever get into an airship.

The Fuhrer drains his glass of water, and pauses for a moment.

HITLER

Well, it was grand!

This last is intended to close the conversation. In silence, then, Hitler and his aides, who appear dismayed and faintly apologetic, take their leave of the mess, leaving Dornberger and von Braun alone and dumbfounded as the lights slowly fade to blackout.

Why was it I could not believe in the success of your work? If we had had these rockets in 1939, we should never have had this war.... Europe and the world would be too small from now on to contain a war. With such weapons humanity will be unable to endure it....

-- Adolf Hitler, 1943

SCENE SIX

Colonel Walter Dornberger's office, that evening. The Fuhrer has already departed. Melancholy, von Braun and Dornberger are sitting, drinking coffee and discussing the visit.

VON BRAUN

Well, I'm glad that everything worked right today. I should have been terribly embarrassed had something gone wrong in front of the Fuhrer ! ...Not, of course, that it would have made a bit of difference in his impression of our work here.

DORNBERGER

Nonsense. Generals Becker and Brauchitsch both have given me their admiration and approval for what we have accomplished here in so little time.

VON BRAUN

Wonderful. Winks and nods from his henchmen; nothing from himself.

DORNBERGER

I'm sure that your old friend and professor would have enjoyed being called a henchman. *(Pause.)* General Becker is closer to our funding than the Fuhrer is. He oversees the financial end of this project more closely than anyone else in the Reich. His prestige, and that of his fine protege *(indicating von Braun)*, are at stake here along with our rockets. He can be trusted to do his best to defend our budget.

VON BRAUN

Do you think he understood it at all, Walter?

DORNBERGER

The Fuhrer? I'm sure he missed some of your explanations.

VON BRAUN

No, I don't mean that. Do you think that he understood at all what we are offering him?

DORNBERGER

Well, I'm pretty sure that he doesn't understand the implications of our rockets -- not even as weapons. Perhaps he thinks they are too complicated. Perhaps he can't find a proper niche for them in his plans.

VON BRAUN

I lectured him for hours about rockets, Walter; and I can't rid myself of the impression that it all went in one ear and out the other. I'm sure that our budget will be preserved, but I wanted more than that. I had thoughts this morning of winning the Fuhrer over to rocketry. He only wanted a

rocket missile. (*Pause.*) I wanted more than that! I wanted him to be excited by the idea. I still had some hope, even after we showed him the A-5, even at lunch. When he told me that he was a friend of Maw Valier's, my heart leaped! I thought, 'perhaps there is still a chance to convince the Fuhrer.' Well, I was wrong.

DORNBERGER

Wernher, I'm sorry. (*cautiously:*) You know that I tried to warn you this morning –

VON BRAUN

(*Angrily*) Warn me? About what? You told me to mind my tongue about space! You didn't warn me about the Fuhrer's stupidity or lack of vision! (*Pause.*) No, we have failed to win the Fuhrer to rocketry.

DORNBERGER

I don't think so. He seemed to approve of our plans to build the A-4.

VON BRAUN

No! He did not disapprove of the A-4. I think there is a difference.

DORNBERGER

Well, to me it means the same thing: that I will proceed with its development. What does it mean to you?

There is a knock on the door. Enter Heinz Grunow and Klaus Reidel. Reidel, uneasy but trying to keep his spirits up for the occasion, is carrying a small package. Grunow is carrying an open champagne bottle and four glasses.

GRUNOW

(*Jovially*) Happy Birthday, Wernher!

REIDEL

Happy Birthday! (*presenting the gift*) For you, Herr Doktor. From your hard-working staff.

Grunow sees to it that everyone has ample champagne.

GRUNOW

Well, go ahead, open it!

von Braun does so, only to discover a tiny silver A-5. Grunow is standing by with a grin.

VON BRAUN

It's beautiful.

REIDEL

Turn it upside down!

von Braun turns it upside down and explores it for a moment before discovering its real purpose. With a wry smile, he activates his new cigarette lighter for Colonel Dornberger: the flame is produced out of the bottom of the A-5 model as the exhaust from the engine of the A-5 itself. Laughter from all four. Grunow raises his glass:

GRUNOW

To Wernher von Braun, the greatest rocket engineer in Germany, and the founder of our laboratory. Happy Birthday!

All drink the toast.

VON BRAUN

Thank you, my friends.

GRUNOW

And to Adolf Hitler, the benefactor of our laboratory. Long life to him!

Uneasy pause. Dornberger and von Braun exchange brief looks. Reidel is avoiding anyone's eye.

VON BRAUN

(*Finally*) To Adolf Hitler!

DORNBERGER

To Adolf Hitler!

Reidel mutely raises his glass; all drink the toast.

REIDEL

(*After a pause*) I have work to finish, Wernher. I must go. (*finishing his champagne:*) Happy Birthday.

VON BRAUN

Thank you.

Exit Reidel.

GRUNOW

It certainly has been a great day for the Third Reich, eh, gentlemen? And a proud day for you, Herr von Braun.

VON BRAUN

(*Without much sincerity*) Yes, Heinz. A great day. And a proud one.

GRUNOW

Well, I too have some work to finish myself. (*Raising his glass :*) Long life to you, Baron von Braun.

VON BRAUN

Thank you, Heinz.

Exit Grunow, draining his glass.

DORNBERGER

(*Attempting to rescue joviality*) Here, let's forget about our coffee. (*He refills von Braun's champagne glass as the engineer considers his gift.*)

VON BRAUN

You know, Walter, my family used to own the island of Peenemunde. We used to live here during the summer.

DORNBERGER

I know.

VON BRAUN

I spent many happy summers here. (*Pause*) You know, I used to enjoy walking the forest paths around here. They used to be very peaceful, and the walk afforded me time to think -- I needed a lot of time to think.

DORNBERGER

Every young man does.

VON BRAUN

But what I enjoyed most was that, at night, It would get very dark. There weren't any lights on Peenemunde, you see, except for my family's summer house, and so the nights were very very dark. But the stars were bright!

DORNBERGER

(*Lightly*) What else could possibly compete for young von Braun's attention?

VON BRAUN

One not entirely cloudless night, I stood in the middle of a favorite clearing of mine not far from here. I liked that place because at night, it becomes too dark to be aware of your surroundings, too dark even to be aware of yourself, and all you can see is the stars. Well, I stood there that night, watching the stars; and suddenly, as the faintest wisp of a cloud passed in front of Hercules, suddenly I could feel the curvature of the earth below me, I knew that was standing on a spinning sphere in space; I could feel the thin veil of atmosphere surrounding it, like a curtain, I could see the wall of air and gravity between me and the stars; and I wanted to break free of it. And then, the earth dropped away from me, and I fell through the air, and I broke through the curtain, until I had left this world, and me and the stars were everything there was. I was all alone, and I wasn't aware of anything else but the beauty of the stars. I was floating forever in that magnificent silence. (*Pause*) And then a summer wind slapped my face and I was back on earth. (*Pause*) I have always wanted to build a machine to touch space and stay there. We can't do it yet -- everything we can send up comes back to earth, just as I did. But someday, someday, we will build a machine that won't have to come back to earth for any reason -- not for gravity or fuel or politics or war. It won't have to come down, not for anything! (*abruptly:*) ... I'm sorry. Klaus is right; I'm a fool.

DORNBERGER

(*Raising his glass; he understands*) To the day when we don't have to come back down to earth. For anything.

VON BRAUN

Thank you, Walter.

Von Braun and Reidel drink their toast as the lights fade to blackout.

SCENE SEVEN

Reidel enters the stage.

We are in the assembly shed, late at night, and a single light is shining on a small table where von Braun is sitting. The A-5 model is visible, though not dominating, in the background.

REIDEL

Good evening, Wernher.

VON BRAUN

(*Who does not look up*) Good evening.

REIDEL

Happy Birthday.

VON BRAUN

How was the day for you?

REIDEL

How do you expect? Well, dull. And you? Did you accomplish anything with the little man with the mustache?

VON BRAUN

I thought we might have. Walter still officially believes that we actually made some headway. But I don't see how.

REIDEL

Well, he isn't going to cut our funding, is he?

VON BRAUN

I don't think so.

REIDEL

Wonderful! Did you mention space rockets at all?

VON BRAUN

No. Colonel Dornberger didn't want me to say anything about space travel, and I agreed with his reasons. The Fuhrer does not want to hear about space ships.

REIDEL

Then what does he want?

VON BRAUN

What do you suppose he wants? He wants a military missile that can carry a ton of high explosive one hundred eighty miles downrange with accuracy. He wants the A-4.

REIDEL

I had an argument with young Steinhoff today.

VON BRAUN

Really. Well, I suppose that your day wasn't entirely dull after all.

Pause.

REIDEL

Do you remember the arguments we had when you first persuaded me to come to Peenemunde?

VON BRAUN

How can I possibly forget them?

REIDEL

I know now how young von Braun must have felt as he fought to get us here in the first place.

VON BRAUN

Young von Braun! I'm not yet so old that you have to distinguish between me now and me but a few years ago!

Reidel is heartened by von Braun's vigorous defense of his youth.

REIDEL

Not yet. Wait until you're forty.

VON BRAUN

So you argued with Steinhoff. And you took young von Braun's side, yes?

REIDEL

More or less.

VON BRAUN

More or less?

REIDEL

Well, we weren't exactly rehashing the arguments that you and I used to have.

VON BRAUN

No? What, then?

REIDEL

Steinhoff taught me something today.

VON BRAUN

Yes, what?

REIDEL

He taught me that we cannot pretend the world has not changed. Wernher, it has. Germany has changed since we came to Peenemunde. When we first came here, Adolf Hitler was a strutting clown trying to get attention. Today he is a dangerous man, a very dangerous man.

VON BRAUN

Yes, I know.

REIDEL

And do you remember our arguments? I was against the Army project because I didn't want a bunch of damned generals telling us which rockets to build or how to build them. Of course nobody among us particularly wanted to build rocket missiles, but of course the Army has no intention of buying rocket-powered plowshares when it can have rocket-powered swords instead. We're here because it was a practical decision -- we learned how to build better rockets and the Army would eventually get useful missiles.

VON BRAUN

It certainly seemed the practical thing to do at the time.

REIDEL

But it's not the German Army we're making missiles for any more. It's Hitler. If we give him a missile, he will use it to wage war against Europe.

VON BRAUN

There may not be any war.

REIDEL

Will you stop blinding yourself to the world? How certain do you have to be that there will be a war?

VON BRAUN

It's not my place, Klaus, to pretend that I've been disillusioned. And it's not yours, either. We knew what we were doing from the very first days with the Army. What would our rockets have been used for before Hitler?

REIDEL

They would have been used to defend Germany.

VON BRAUN

Aren't you the patriot.

Pause. Von Braun, who up to this point has been relatively calm, suddenly shows violent emotion.

VON BRAUN

Wrong! Defense, attack, what difference? They will be used to destroy lives. How many do you think our rockets will eventually destroy?

REIDEL

What are we going to do?

VON BRAUN

Do? What can we do? Klaus, let me put this into rocket terms: do you ask what can be done about altering the trajectory of a rocket at brennschluss while it is in the air? No. You should be able to anticipate the behavior of the rocket long before it's even on the pad. You should be able to anticipate the fact that brennschluss will occur at some particular time, and that after that, the rocket is no longer under your control. You should be able to predict its trajectory long before you launch it.

REIDEL

This isn't a rocket.

VON BRAUN

Isn't it?

Pause.

REIDEL

Steinhoff seems to feel we could leave Germany.

VON BRAUN

Steinhoff is young, and naive. I suppose that the idea of leaving Germany appeals to his young sense of heroism! I certainly hope you explained to him that to attempt to leave Germany is futile, not to mention suicidal.

REIDEL

Steinhoff had another suggestion.

VON BRAUN

And what was that?

REIDEL

Restraint. He wants us to hold back, to delay. Every day that we gain is a day that the Fuhrer will not have his superweapon, a day that it will kill no one.

VON BRAUN

No! I will not even consider it. Listen to me, Klaus. I have worked too long, fought too hard to get here. I have no intention of risking all of my dreams, now that there is truly a chance of effecting them!

REIDEL

But Hitler doesn't need your dreams or mine. He only wants our missiles. Don't you hear me? It doesn't make any difference any more how hard we worked to get here. The Germany we contracted with no longer exists! The world has changed, and it doesn't give a damn for your investments in the past any longer!

VON BRAUN

Yes, the world has changed, my friend, and so have we. But the dream hasn't. Yes, the dream! To put men in space; and I don't care at this point whether they have swastikas on their arms. We have much yet to learn to put men in space -- but I know that we can learn whatever we need to learn! All we require is time, and money. Hitler is giving us both, and in return, all we need do is slap together a missile for him.

REIDEL

And destroy a million lives?

Pause.

VON BRAUN

I suppose I'm to say no to that. At least that's what my moral training has taught me. Steinhoff is right, as far as he goes. If we were common men, I suppose the best thing to do would be to follow his second suggestion and delay the A-4 to death. And if we were heroes, albeit suicidal heroes, I suppose we'd follow his first, and attempt to escape Germany. Well, I'm not a hero, and I'm not a common man. I'm just an engineer.

REIDEL

You're also a human being!

VON BRAUN

Yes, exactly! And where, as a human being, where does my obligation lie? I'll tell you something: in the very distant future, that (*he gestures toward the A-4 model*) will be reckoned as more important than who owned what piece of Europe and when!

REIDEL

Perhaps.

VON BRAUN

We have assembled here the greatest collection of rocket scientists the world has ever known. What if we ask them not to work as hard as they could, not to push for that dream because it might be misused? Rocket research has just begun to be legitimate. If we stop now, if we lay down our work and let rocketry stagnate, then man can never reach space.

REIDEL

Of course man shall reach space. We have shown the rocket's potential. Eventually man must use it as a vehicle to travel to the planets.

VON BRAUN

In a hundred years, perhaps.

REIDEL

Perhaps only fifty.

VON BRAUN

What difference -- fifty or a hundred? You and I shall both be cold in our graves by then.

REIDEL

Wernher, you know that I want to live to see our dream realized as much as you do.

VON BRAUN

Then work for it.

Von Braun moves over to the model of the A-4 rocket. He moves his hands across the surface of the missile as he speaks with building passion and rage.

VON BRAUN

This rocket is not merely an aluminum skin and fins surrounding an engine and fuel pumps and a guidance system. No, this is much bigger than mere rocketry. Here is our hard work, here are our years of speculation and equations, here are our hearts and dreams! This is the human spirit, reaching out to touch new worlds. That's what this really is. But the mediocre mass of people ...! The good people of Germany, or any other nation. Ask them what this is, and it is merely a rocket. You can bang your head against their stupidity and ignorance for as long as you like; you can rain rocket bombs upon them for ever, or fly men to the moon; their ideas about it will not change. It is either some dreamer's fantasy (*indicating himself and Reidel*), or it is a terrible weapon (or a wonderful weapon, depending upon whether you are wielding it or your enemy). But they don't see what it really is. They can only ask, "That is all very nice, but what practical purpose does it serve?" Practical purpose! Can it help you to take advantage of other men? Will it increase your power to destroy them or to profit from their suffering? No? Then it serves no practical purpose! Herr Hitler asks me, "That is all very nice, but if I cannot wipe out a hundred thousand lives with it, then what practical purpose does it serve?" Even if we all went to another

country and worked there, with a big facility like Peenemunde and lots of money, it would still be the same; we would still work on more missiles to destroy more lives, fulfilling 'practical' ends. We can never sell enthusiasm for space to politicians and generals. We can only sell them power -- more and more power, all the time. Does it really matter in the end who wields our weapons -- Hitler or Chamberlain or Stalin or Hirohito or Roosevelt? These rockets will as easily kill democrats as fascists, and communists as well as anarchists. As for me, I have my own dream, and I intend to push for it whenever I can, wherever I am. Even here, even under Hitler, even in war, if need be!

Pause.

REIDEL

I think it will rain again tomorrow.

VON BRAUN

Probably.

REIDEL

So. What do you intend to do?

VON BRAUN

(*quietly*) We stay at Peenemunde. We build whatever the Fuhrer wants us to build, with the utmost enthusiasm. We learn as much as we can. And we think about a better future.

REIDEL

And how do we rationalize the lives we will destroy?

Von Braun does not answer.

REIDEL

Doctor Faustus would be proud of you, Wernher. (*After a pause, he holds out his hand.*) But I am with you. God help us all.

Von Braun takes his hand.

VON BRAUN

Thank you. (*Pause*) Well, Doctor. Let's get some sleep. Tomorrow is going to be a very long day.

Exit both.

There is the very soft rumbling of thunder, and a very faint flash of lightning. The lights gradually fade to blackout, with the exception of a very soft glow on the A-4 model.

What of that journey, the rocket and its meaning, man and his endless ticketing of himself to Far Rockaway and Land's End and Copernicus Crater? Will we never get him away from the Viking Longboat, off the trolley, free of the rocket or the damn time machine he so dearly wishes to invent, test, explode, and go far-traveling with? Never. Will any of it improve him? About as much as ten laps around a meadowfield and a cold shower help a boy of fifteen. It doesn't change him; it but makes him feel more alive. How can you possibly compare space travel with a sweaty boy and an icy shower? Because I want mankind to be very much alive. But improve him? No. Hitler and Stalin wanted to improve him out of existence. I would take him -- warts, bumps, hogwash, mush, and all, every athlete's foot of him, armpit lumps, corns, bad dreams -- and put him on the moon, Mars, then drop him in the Coal Sack Nebula, shouting with joy, shrieking with fear, and alive, alive, O! I don't think you can improve a thing that is already improved, already lost; always behind but always winning; filled with midnight, burning with sun; sly and untrusty, open and lacking guile. I sing paradoxical man. I accept not only his flesh but the bones within his flesh and the sin marrowing those bones. Approve of him? It is hard to approve of this lumpy child. But sons are always lovable, murderers though they be, saints though they be -- and we hate saints sometimes, do we not, as much as we hate murderers? I sing the entire man, then, going into Space.

-- Ray Bradbury, 1973

CURTAIN

PERFORMANCE HISTORY

Brennschluss had its first public performance on April 15, 16, and 21, 1984, at Worcester Polytechnic Institute's New Voices 2 Theatre Festival in Worcester, MA.

Director: Patrick M Brennan
von Braun: Frank Hunt
Reidel: David Lugowski
Steinhoff: Shawn Ritchie
Grunow: Peter Gianopulos
Dornberger: Dave Mason
Secretary: Bob Grzyb
Hitler: Brian Keogh
Brauchitsch: Carmen Romeo
Becker: David Riel