

The American Fighter Aces Association
Oral Interviews
The Museum of Flight
Seattle, Washington

Frank G. Tallman

Interviewed by: Eugene A. Valencia

Interview Date: circa 1960s

Abstract:

Stunt pilot and aviation historian Frank G. Tallman is interviewed about his collection of vintage aircraft and his work with Tallmantz Aviation. He describes his experiences restoring and flying historic warbirds and discusses the characteristics of various aircraft. Topics discussed include the capabilities of World War I-era aircraft, his thoughts on specific vintage airplanes, and his restoration efforts.

The interview is conducted by fighter ace Eugene A. Valencia.

Biography:

Born in 1919, Frank G. Tallman III was the son of a World War I pilot and developed an interest in aviation at a young age. He joined the United States Navy during World War II and served as a flight instructor, transport pilot, and dive bomber pilot. After the war, Tallman began collecting vintage military aircraft and, whenever possible, restoring them to flying condition. In the 1950s, he founded Tallman Aviation to rent out his historic airplane collection and his stunt pilot expertise to interested parties. In 1961, Tallman and Hollywood stunt pilot Paul Mantz merged their operations to create Tallmantz Aviation, which was involved in a number of film and television productions. In 1965, the company suffered several setbacks—first with the death of Mantz, killed in an airplane crash while filming *The Flight of the Phoenix*, then with Tallman losing one of his legs to an infected injury. After the amputation of his leg, Tallman re-learned to fly using a prosthetic and continued his stunt pilot and production work with Tallmantz. In 1978, Tallman was killed when his Piper Aztec crashed in the Santa Ana Mountains (California) due to inclement weather.

Tallman's film and television credits include *It's a Mad, Mad, Mad, Mad World* (1963), *The Thousand Plane Raid* (1969), *Catch-22* (1970), *Murphy's War* (1971), *Baa Baa Black Sheep* (1976-1979), *The Cat from Outer Space* (1978), and *1941* (1978).

Biographical information courtesy of: Frank Tallman Biographical File, The Museum of Flight (Seattle, Wash.).

Restrictions:

Permission to publish material from the American Fighter Aces Association Oral Interviews must be obtained from The Museum of Flight Archives.

Transcript:

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Frank G. Tallman

[START OF INTERVIEW]

00:00:00

[Introduction and discussion of World War I aircraft]

EUGENE A. VALENCIA: Mr. Frank Tallman, who recently merged with Paul Mantz, and has become one of the largest collectors of aircraft in the world, stopped by, and to bring into the series a note of interest, we thought that it would be very interesting to ask Paul [sic], who has flown World War I aircraft and who has more background than anyone that we can name in the world. This was documented by a call to the Air Museum in Wright-Patt. Frank, I'll turn this over to you. As you know, my voice will be cut out—

FRANK G. TALLMAN: Yeah, okay.

EAV: But as a matter of interest, how would you—how about going down the World War I aircraft that you have available in flying condition.

FGT: Well, we have SPAD VIIs, Nieuport—French Nieuport 28s. We have, of course, our famous Jennies, JN-4Ds, which were our train—

[recording stops and starts again 00:01:10]

FGT: Well, we have the Jennies, as I say, which, of course, were our—while they were not a combat airplane, they were still a training airplane, and an awful lot of our very famous combat pilots who were in World War II at one time or another flew Jennies in their training. And Jennies themselves, had, believe it or not, a combat history. The first model Jenny was one of the first combat airplanes in the world. It saw its service with Pershing's troops in the Mexican insurrection.

So besides that, of course, we have the J-1 Standards, which are a wonderful airplane—which were, incidentally, were used in *The Wings of the Eagles*—and been used on floats—on gear and on floats. Now, we have—of the combat airplanes of World War I, we have Fokker D.VIIIs. We have the very rare original British Sopwith Camel, which I have for some day when we do this thing on Richthofen. And we also have available to us, which is quite interesting in World War I, two Fokker Triplanes, which are flyable.

EAV: Is that right?

FGT: They hadn't—Fokker tri—I have to stop and think. We have the German Pfalz D.XII, which is in this issue of *Sports Illustrated* here, which is, of course, completely original. And we have a D.H.4. We have a—if you want to go back very early in combat in World War I, we

have—in the days when they were throwing bricks at one another and shooting back and forth with pistols, we have a completely flyable [unintelligible 00:02:48] Blériot, French Blériot. And we have a fabulous and huge Maurice Farman Shorthorn, which, incidentally, shares with the Curtiss P-40, I think, the distinction of being the only airplane in—as the P-40 was the only airplane in World War II—the only airplane in World War I that actually flew in the very first days of the war that was still flying in some sort of service at the end of World War I.

EAV: [unintelligible 00:03:16].

FGT: The Maurice Farmans and the Blériots went to Belgium in the first days of World War I, when they were chasing their cavalry around the roads in Belgium. Before the war even got to France, early in 1914. They were still flying at the end of the war in 1918 as a trainer.

00:03:35

EAV: Well, I'll be darned.

FGT: So they were like the P-40, I think. It was the only airplane that served all the way through our war.

[Strength ratios of World War I aircraft]

EAV: Well, Frank, on the World War I aircraft, you rehabbed them, rebuilt them.

FGT: Yes.

EAV: Space-wise, how do they compare? One against the other, let's say. The Allied versus the Germans.

EAV: Well, of course, I should have said one airplane—

UNIDENTIFIED WOMAN: Paul Mantz for you on the phone.

[recording stops and starts again 00:04:01]

FGT: Well, we were speaking about the different types of construction. Of course, with the sole exception of the German aircraft, which used—as in the case of the German Fokker D.VII and, in fact, with the original Fokker Eindecker, which was the scourge of the skies in 1915 and looked very much like the Blériot—all Fokker airplanes were steel tube fuselages, which was, as you can imagine, miles ahead of anything that the Allies had. German Fokker aircraft were all steel tube fuselages—fabric covered, of course—biplanes, as they all were. But the Allies were, in the case of the British Sopwith Camel, which I have—it's an original—all were—were all wood structures. Now, we think, of course, of a wood structure today as being something that's

unsafe and insecure, where in effect, actually, these airplanes were designed with strength loads in the nine G range.

EAV: For goodness sake.

FGT: And, you know, a jet's only good, what? Ten? Nine, ten? Some of them aren't as—some of them aren't as high as that. I mean, I think our Corsair was only ten.

EAV: Yeah.

FGT: So here were airplanes built with the same strength ratios that they had—and they were still stick and wire and fabric. Needless to say, you could go up to them and lean on them and poke a hole in the fabric, but as long as the fabric itself wasn't torn, these things are just as strong as anything that's ever built and, of course, as you can imagine, a great deal stronger than any of our transports or any of our current private aircraft.

00:05:30

[Notable Allied and German aircraft]

EAV: That's amazing. I don't think this story has ever been told. If—going back, of course—World War I—and again, you have flown World War I aircraft, all maneuvers, dogfights, et cetera—if you were an Allied pilot, what aircraft would you be concerned with and what aircraft would you rather fly?

FGT: Well, I think that there were three airplanes in World War I. In reading back and talking to some of the pilots who flew then—and of course, most of them didn't have, as you know, the time, flying time. They either got killed too quick or they—one—they never developed the flying hours that we got in World War II, so very few of them had more than 100, 150 hours.

EAV: That's what I understand.

FGT: The largest—I think the largest amount of flying time I ever read about was 500 hours. That was considered—

EAV: Who was that? Do you recall?

FGT: I think Rickenbacker had almost 500 hours when the war was over. And some of the French pilots who lived—Nungesser had—I guess Nungesser had about—approaching 1,000 hours. He fought through '16 all the way through the end of the war, with some 23 crashes. But I think if I were flying—and from what I've read and talked—and the men I've talked to, the Sopwith Pup, the British Sopwith Pup—which, incidentally, is the father of my Sopwith Camel in progression—the Sopwith Company—was considered the nicest flying of all military airplanes in World War I. It landed at about 28 miles an hour. It had a rotary engine,

80-horsepower, which was—as you know, when you get an engine, you start building up the horsepower, and the first thing you know, they blow heads and do all sorts of things. And engines aren't any different today than they are then. And this engine was just within its own nice range of horsepower. It wasn't overloading itself. This 80-horsepower Le Rhône runs just like a little watch. It had a single Vickers gun. It only weighed about 780 pounds, would climb 1,000 feet a minute with a pilot, ammunition, gun, and everything else, fully aerobatic. Used to loop them right off the ground.

EAV: For goodness sake.

00:07:29

FGT: And a delightful flying airplane with no bad habits at all. And another airplane that came out in '16, was used right through the end of the war because the wing loading was so light that it could get at altitudes that the more powerful airplanes like the SPADs never could reach. And then I think towards the end of the war—speaking of the Allied side now—the British S.E.5 was probably—

EAV: Oh, yes.

FGT: ...one of the nicest airplanes and considered a delightful airplane, could zoom 1,000 feet from level flight at cruising speed—pull right up and go up to 1,000. And when you start thinking of all the drag that's on one of these airplanes, it was quite phenomenal. And built very strongly and a very fine airplane. We have an S.E.5, which we're in the process of working on now and which will be flying in another month or so—couple months.

EAV: Frank, on the other side of the ledger, if you were a German pilot, what aircraft—

FGT: Well, of course, I think if you're a German pilot—of the German airplanes, we have, of course, the German Pfalz D.XII, which is a contemporary airplane with the German Fokker D.VII. They were both in the same period of time. And the Fokker D.VII was by far and away—probably—I think probably could be considered to be the best airplane in World War I. I'm speaking not only from the German standpoint—

EAV: Hm-hmm [affirmative].

FGT: ...but they had very fine, low-speed performance. They could hang on the prop. This was what used to kill an awful lot of our guys. They'd pull away, and the Fokker could just pull up and stall out and just follow them, walk the rudder around, and just follow them in a circle. If he was below, instead of trying to climb up, he'd just pull the nose right up and just sit there in a stalled attitude and walk the rudder around and follow him with a lead.

EAV: For goodness sake.

FGT: And it shot down an awful lot of Allied pilots before they found out about it. It had fabulous low-speed performance. And of course, from the rigger's standpoint or from the mechanic's standpoint, was a full cantilever upper wing and a full cantilever lower wing and didn't in effect need the outer panel—the end struts and the wingtips. It was strong enough to do without them, but they put them in there because the pilots didn't like it.

EAV: For goodness sake.

FGT: And it was a delightful plane to fly. And of course, as in all wars, particularly World War I, they had gone through the best of the German youth and the Allied, too. And towards the end of the war, when they were running out of pilots, they needed an airplane that made a better pilot out of the guy. And this certainly was true of the D.VII, plus the fact that it had that Mercedes engine, which was, as it is today, the same quality type of workmanship. Very heavy engine but built fabulously well with great, huge bearings.

And incidentally, we had a reliability tour—I don't mean to divert from what we're talking about—but we had a reliability tour here in 1920. And they sent various airplanes across the country, and they sent a whole bunch of D.VIIs back to Wright Field for evaluation after World War I. And there were all kinds of airplanes in this reliability tour, DHs and Jennies and Sopwith Camels and SPADs and all sorts of darned airplanes. And the only airplane that made it to the West Coast and back to Wright Field without an ounce of trouble was the Fokker D.VII.

EAV: For goodness sake.

00:10:46

FGT: They left all the American, all the British, and all these other airplanes spread out all over America, going and coming. And the only one that went out and back without an ounce of trouble, without an ounce of problems, was the Fokker D.VII with the Mercedes. A mighty fine engine.

EAV: Frank, during my visit to your wonderful museum a couple weeks back, I talked to some of your mechanics people and one of your pilots. And I understand some of the planes that you fly have nasty habits. Going back to the deadstick days landing—

FGT: Well, the German Pfalz, I think, is without any peer the worst airplane that I ever flew. I think—in landing attitude, it's just a bear.

EAV: Is that right?

FGT: It's a miserable airplane. It's got this wonderful Mercedes engine and it runs and—but the airplane, when you touch down, you have absolutely no control in any axis. You might just as well not have a rudder, a stick, or—

UW: Mrs. [Lundy?] is on the [unintelligible 00:11:49].

[recording stops and starts again 00:11:50]

FGT: Well, we were—I guess we were discussing, of course, this—the P-XII and its bad characteristics. And as I said, when you land this thing, you might just as well throw all controls out of the cockpit and just hang on because nothing you do will make the tiniest ounce of difference. If you had throttle—readily responsive throttle, which you almost have in no World War I airplanes, this engine—these Mercedes will run very reliably in the air, but when you start coming in with throttle chopped back, they had the—carburetors were somewhat primitive, and they just—you just don't get a good, low-speed [jet?] in it at all. And consequently, your engine just will not idle. It just spits and coughs and usually quits on the way in. So every landing, I figure—when I'm flying any kind of a World War I airplane with the original powerplants, I figure it's a deadstick landing every time.

EAV: I'll be darned.

FGT: Every one's a deadstick landing. You got to come in high enough to slip them off. And you sure get some practice in side-slipping [unintelligible 00:12:51].

[Challenges of flying vintage aircraft]

EAV: Frank, I notice in the—in your article in *Sports Illustrated*, you also mentioned some of the problems you have in landing the aircraft on concrete runways when they were built for—

00:13:02

FGT: Oh yeah. Of course, you just simply—this is something that just cannot be done because you have no brakes on most of these things, though some of the—I must say that, in the case of the German Pfalz, I've equipped it with brakes, and it's still almost unmanageable. The Pfalz has brakes, which, of course, as you know, they didn't have in World War I. You can't see it, but it's completely hopeless. I would never—

EAV: And you just hang on when you're—

FGT: Yeah. I would never fly that airplane without the brakes. In fact, that's what caused the accident that was in *Sports Illustrated*. The engine cut out cross downwind, and I had to go in with it. It's not—it wasn't the fault of the engine. I think it was the case—in this case, of gumming in the gas. You don't fly them that much, and then the gas sits in the tank so long that it begins to gum, and that's what happened. And I don't think we'd have ever known—I don't think we ever will know exactly what the trouble was, but—because the engine is reliable. But anyway, I did cut out cross downwind. I landed across this—I couldn't get in—back into the

wind, and I couldn't get on grass, and I had to go across the big, major runway at Wright Field. And the moment that tailskid touched on that concrete, it just spun around. If there's the slightest drift—you see, the tailskid has to have something to bite into.

EAV: Hm-hmm [affirmative].

00:14:22

FGT: And it's true of all World War I airplanes, whether they're Camels or SPADs or Nieuports or whatever they are. And if they get on concrete, they'll swap ends. And when they swap ends, of course, you're going to—bound to—you're bound to wipe out a wing. If it doesn't go [unintelligible 00:14:36] on your back, you're lucky.

[Movie stunts in vintage aircraft]

EAV: Frank, I was quite amazed with your operation, your maintenance, your overhaul. That must be a terrific operation.

FGT: Well, there's an awful lot of stuff, as you know, down there. We have almost 80—well, we've got over 80 airplanes now. And the big problem, of course, is keeping spare parts for these things. Now, being a historian as well as a person interested in the motion picture industry, I kind of like to have—I kind of like to keep these engines original. But if we have really rough stuff, then I generally put—really rough aerobatics and close stuff to the ground and so forth—I usually wind up by putting another—either substituting one of the other airplanes in the shot or putting a more modern engine in them, which I can depend on.

EAV: Uh-huh [affirmative].

FGT: Because, as you know, you're asked to bounce your wheels off the ground, fly through a hangar, and do all sorts of things, and you sure hate like the dickens to do this and have a rotary quit and start throwing parts—

EAV: Well, as your partner Paul Mantz mentioned the other day, when John Ford's name came up, he turned pale and said, "That guy, every time we hear his name, I think of flying through hangars for him." So—

FGT: Yeah.

EAV: ...I know what you people do.

FGT: Well, he's got the great expression about swallowing a little bit more raw heart.

[Evenly matched aircraft in dogfights]

EAV: How about dogfighting, Frank? What two planes are comparably matched?

FGT: Well, it's hard to say. Each of them—Germans had a little different concept of flying than we had, but certainly the Fokker D.VII, we'll say, and the S.E.5 are probably well-matched. Probably the Fokker D.VII and the Sopwith Camel are pretty well-matched. Probably a Camel and a Triplane are pretty well-matched. They're all in about the 110-, 115-mile-an-hour level flight speed. They all land very slowly by our standards, but that still doesn't prevent them from ground looping and still doesn't prevent them from tearing something up when they do go around. But in the air, some of them are quite nice flying. Some of them—as you know, all of them had very little thought about pilot safety. In the case of the German Pfalz, when you look down through the—you look underneath, you look right into the engine compartment. There's no—there's nothing between you and the engine.

EAV: For goodness sake.

FGT: There's no firewall. There's nothing. You look right down there. And I've had a fire in a Mercedes. Fortunately on the ground, but it's quite a sight to see the old fire down there and you're about four feet away from it and it's burning up a storm.

00:17:14

EAV: Especially with the fabric, yes.

FGT: Well, oil and gas and fabric and wood, it'll just go like a Roman candle.

[Aircraft proficiency and restoration]

EAV: So, Frank, how do you keep your hand in? I understand—of course, your knowledge and some pretty competent pilots, you put on one of the finest demonstrations seen anywhere in the country today. How do you keep your hand proficient?

FGT: Well, I don't know.

EAV: With all the aircraft—

FGT: Well, I suppose it's—over a period of time, you develop a certain amount of immunity to aircraft characteristics. I mean, you just get kind of used to it. I don't think I have to fly most of these birds too much anymore because I just—I'm so used to the airplanes. And of course, I did what so many guys have had to do before me. They found out the bad things the hard way,

which I did. I ground looped these airplanes, and I had trouble with them, and I had a lot of trouble learning how to run these engines.

I think when I told you originally when I wrote this story for *True* many years ago about the Sopwith Camel, it was the first military fighter airplane that had been restored in America with a purpose in mind—a mission, really—and it took us four days of hand-propping and relays of guys before we got a cough out of the engine. Because nobody knows how to operate the engine. Nobody knew where the throttle was supposed to be or the air valve or what kind of fuel pressure you're supposed to have or anything about them. How to prime them, anything. Nobody knew anything about them. And nobody could find anybody who knew. And there weren't any books written on it. And now we've got a beautiful pile of handbooks, so you could take a guy like—an experienced guy like yourself or Joe Foss or anybody else and say, "Well, here's the pilot handbook on the thing," and maybe you wouldn't be too wild to go out and fly the bird, whatever it might be, but if it was your duty, you'd go out and do it, and you'd have a lot to go on. But there are no handbooks on any of this stuff, so all these engines you have to learn the hard way. And they catch on fire, and they do all kinds of darn things.

And we have a pretty good stock of spare parts, I will say that. We've got the greatest group of spare engines in the world. Spare Mercedes, spare Hispano-Suizas, spare 110 and 80 Le Rhônes, spare 160 Gnomes. Name almost anything. Maybach, Zeppelin engines, and Liberties and OX-5s and Hall-Scotts.

00:19:30

[World War II aircraft]

EAV: Frank, what about your World War II stock?

FGT: Well, of course, we have—in the way of fighter types in World War II, we have—we have Corsairs, of course, available, F6s, FM-2 Wildcats or F4F Wildcats—Grumman Wildcats. We have P-40s, P-51s, P-38s, B-25s, B-17s, Zeros—

EAV: How about the Zeros, Frank? Are you going to build them up?

FGT: Yes. But as you know, we've seen so much of this hammed-up stuff in previous things.

EAV: Right.

FGT: When we have our Zero finished, which won't be too very far in the future here—in fact, it'll be quite soon—you're going to see an airplane that not even Mitsubishi himself could tell from a Zero. It'll be beautiful. It'll look exactly like a Zero.

EAV: Well, knowing you, I—

FGT: Well, you know the rest of the airplanes, and when you saw this thing auguring down your way, you'd either turn into him or get away like hell.

EAV: Well, I—

FGT: But we'll have—we have—

EAV: You have a 24—or availability of a 24?

FGT: Well, that's a tougher one. That's probably the toughest of the whole lot, a B-24.

EAV: Is that so?

FGT: Yeah. Because there were—there's only, I think, two of them left in the world.

EAV: Is that right?

FGT: Oh yeah. It was not a—I don't know why, whether it was engine problems or what, maintenance problems, but it never had the life or the service that the 17 did. And we have, of course, 17s available. We have one P-47, which we can get.

EAV: Is that the N type or the old one?

FGT: The old Razorback. But we have a pretty broad cross section of these airplanes. We have—we can—we have Focke-Wulf 180s that we can—that we've got lofted up ready to put together. But that's about the only thing that we have and can get in German aircraft.

EAV: Oh, Frank, I was asked to ask you this. What about a Betty? What could we—

FGT: We can put together a Betty that would be pretty good.

EAV: Is that right?

FGT: Yeah. Hm-hmm [affirmative]. Be a pretty good-looking Betty. It'll take some doing, but it'll be flyable and be a pretty sharp-looking rig.

EAV: That was the only question I had.

00:21:59

[END OF INTERVIEW]