

py208

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1 conventional takeoff and landing aircraft of the same vintage.
 2 So, replacing the F-14 and the A-6 with the V/STOL makes
 3 sense only if it's part of a weapons system that is more
 4 effective than the F-14 and the A-6, and that means the
 5 ordnance has to be good enough to render the platform capa-
 6 bility largely irrelevant, which means you have to get some
 7 kind of a standoff weapon so you don't have to worry about
 8 how good the airplane is.

9 Now, back in 1922 there were hearings before the
 10 Congress on the structure of the U. S. fleet, and they looked
 11 at battleships and aircraft carriers as tradeoffs. The
 12 Navy's General Board, at that time, recommended against doing
 13 away with battleships in favor of aircraft carriers because,
 14 at that time, aircraft technology was not good enough to do
 15 that.

16 Now, after the Vinson-Trammell Act was passed in
 17 1934, and the Navy set out on another building program -- and
 18 this was some 12 to 14 years later -- the thing came up again
 19 and got looked at one more time. And we embarked on a battle-
 20 ship building program for World War II, that produced ten
 21 beautiful battleships, when we needed aircraft carriers.

22 I think we are, today, facing something like this
 23 and my question that I would like to leave with you -- and I
 24 don't know the answer -- is, whether we are today, in 1922,
 25 or 1935, and I think this is a very key and profound question



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1 for all of us here in the Navy. And we really do have to face
2 up to it and I hope we get ourselves the right answer because
3 we can't afford to miss on it.

4 Thank you.

5 (Applause.)

6 MR. HESSMAN: Thank you, Al.

7 If I said all the good things that should be said
8 about our final discussant, Chairman Charlie Bennett, of the House
9 Armed Services Seapower Subcommittee, we would run out of
10 time, so I will have to limit myself to just two or three
11 comments about him.

12 First, he won the Silver Star for Infantry service
13 in World War II. Second, an idea of how his colleagues hold
14 him in high esteem is the fact that they elected him Chairman
15 of the first House Ethics Committee. Third, he set the record
16 for most consecutive rollcall votes in Congress -- this is
17 the all-time record -- he has not missed a single roll call
18 vote in 22 years.

19 As Chairman of the House Seapower Subcommittee,
20 he has for several years, along with his colleague, Bob Wilson,
21 on the Republican side, been probably the single strongest
22 influence on Capitol Hill, in my opinion, in keeping our Navy
23 what I do believe it is today -- first in the world.

24 Chairman Bennett, since his World War II service,
25 describes himself as a "militant pacifist", and it's for that



This is a new article

(Title) Charles Bennett

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1 reason that he's trying to keep us so strong that we never
2 will go to war again.

3 I'd like to present Chairman Bennett.

4 (Applause.)

5 CONGRESSMAN BENNETT: Well, thank you very much. It was a
6 fine introduction, it's been a fine meeting and I've enjoyed
7 being with you.

8 ~~Before I say anything else, I want to say that my~~
9 main quest in life is to have peace in the world, ^{to} defend
10 our country, ^{and to} keep it secure and strong, and I think the best
11 way to do that is to have the strongest ^{possible} national defense ^{that}
12 ~~we possibly can.~~

13 ~~I'm saying that~~ ^{this} because ~~my next~~ ^{the} remarks that ~~will~~
14 follow may ^{seem} be otherwise ^{out} of context.

15 ~~First, I will start off talking briefly about~~
16 Admiral Trost's observations. ^{ed} ~~I'll just use these very fine~~
17 ~~papers as places to take off from.~~ And the thing I want to
18 ~~take off from there on is the reference that he made to the~~
19 ~~numbers of ships, and the comments he made about the fact~~
20 ~~that it's difficult to have a prognosis from the Navy, or from~~
21 ~~the government, as to how many ships we ^{will} have.~~

22 He pointed out, I believe, that Admiral Arleigh
23 Burke said 927 was about the number of ships we should have
24 today. And we actually have about 460. And my fine staff
25 ~~which is in the back of the room here,~~ prepared some statistics

Q: by whom?
Please check transcript.



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1 for me ^{which} and ^{that} it showed for every year from 1971 down to date,

2 the Navy has asked ~~the cumulative number of ships they've~~

3 asked for is 209. ^{ships} Now, the number they got was 101. So

4 you can see, that's just about ^{half a} double, you see, and when you

5 ~~double the 460, you get about what the Navy would have wanted.~~ ^{if that total were doubled, what it}

6 So ^{quite} Admiral Arleigh Burke was pretty accurate in

7 his prognosis of what he thought the Navy should have.

8 Then, in David Kassing's speech, or presentation,

9 he quoted ~~from~~ Admiral Holloway. He said Admiral Holloway

10 said, with regard to the nuclear content of the ^{Soviet} Russian

11 Navy, "If nuclear weapons ^{were} are not used, I would predict ^{ed} about

12 a 30% to 40% percent attrition of our carriers ^{if nuclear} if nuclear

13 weapons are not used. Holloway also said ^{he}

14 And he said, "I would expect very heavy losses to

15 our carrier forces, if nuclear weapons were used." He ^{knowing} He

16 pointed out the things ^{many related changes} that have happened, Dr. Kassing did.

17 He said the presence of nuclear weapons ^{and} since World War II,

18 the entry into the fleet and into the arsenals of all countries

19 he pointed out nuclear propulsion, anti-ship missiles, ^{and} ocean

20 surveillance, and the ^{reduction in size} composition of the United States Navy,

21 which is, of course, much smaller than it used to be, and

22 the impact ^{Kassing then discussed} those things ^{changes} have upon decisions to be made.

23 Dr. ^{Rueven} Leopold told us ^{discussed the} about various things ^{factors in} that impinge

24 upon the difference of numbers, ^{and} that we have. And he mentioned

25 bureaucratic inputs, technological inputs, and as a professional

Rueven or Ruevan

PY
jm

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1 lifetime politician who sat on the knees of Woodrow Wilson
 2 when I was only seven, I would say I would like to add ~~that~~
 3 ~~there's a~~ ^{there are} political input^s. There ^{is} a political input from
 4 Congress, ~~there's a~~ ^{and} political input among mankind. ^I I
 5 never call anybody my enemy. I never look upon my opponents,
 6 when I run for office, ^{as my} opponents, really. They are
 7 people running for the same job.

8 I had years of front-line hand-to-hand combat.
 9 I ~~we~~ ^{have} looked into the eyes of ~~the~~ ^{the} man that I killed. I don't ^{not}
 10 want that ^{to persist}. Twenty years ago, when I was dark-
 11 headed instead of white-headed, I drafted a bill called the
 12 "Arms Control and Disarmament Agency Legislation".

13 Two young senators joined me in introducing this ^{bill}
 14 on the Senate side, ^{Hubert H.} Senator ^{John F.} Humphrey and Senator Kennedy.
 15 That bill finally became law during the Kennedy Administration.

16 I remember the remarks ~~that were~~ ^{h h m} made by ^K Kruschev ^{when he}
 17 was in our country, ^a very candid and, I thought, ^a very
 18 open-minded man ^m.

19 He said he would bury us. But I noted the ^{context} surround-
 20 ings in which he said that. He had confidence in the
 21 socialist system, I don't, but he ~~does~~ and he did. And many
 22 people ~~took that remark as being one of shaking and rattling~~
 23 of guns ^{heard the} ~~I didn't~~ ^{in the remarks, but I did not} take it as that.

24 It's true, I don't ^{not} see how a system that takes away
 25



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1 the freedom of the average man can survive, ⁱⁿ ~~in a~~ popular

2 ~~context, and I don't see~~ how it can be expanded without arms.

3 ~~And~~ history shows that it cannot. But I took ^{it} ~~him at his face~~

4 ~~word,~~ that he felt ~~that~~ his system was so much better than

5 ours, that it could compete with ~~us~~ and destroy ~~us~~. ^{ours}

6 Now, in this context, ~~I feel,~~ when I ^{consider} look at what

7 Admiral Holloway ~~has said,~~ and I look at what ^{others have said} these papers

8 ~~say,~~ ^{enter} two other things ~~pop into~~ my mind. ~~Until I read these~~

9 ~~papers,~~ even ~~I,~~ as Chairman of the Seapower Subcommittee,

10 ^{I had} did not realize ^{to} the degree ^{with} which the ^{Soviet} ~~Russian~~ Navy has

11 centered ~~on~~ the first strike with nuclear weapons, and

12 the degree ^{to} ~~with~~ which we have responded with our own nuclear

13 weapons.

14 I would say the average member of Congress ^{not} ~~doesn't~~

15 understand this today. I would say the average members of

16 Congress, two weeks ago, ^{does not} ~~didn't~~ know that we have nuclear

17 tactical weapons all over Europe, ready to fight a non-nuclear

18 war ^{with}. And, of course, the theory is ^{that} ~~this use of~~ nuclear

19 weapons upon the ships ^{will be used in} ~~is going to be~~ a non-nuclear war.

20 Well, as a man who believes in trying ^{for} ~~real~~ hard

21 ~~to have~~ peace without giving up, I ^{would} ~~think I'd~~ try ~~real~~ hard,

22 if I were on the Arms Control Agency, to ^{avoid} ~~see if there's some~~

23 ~~way in which we can diminish the possibility of getting to~~

24 that new plateau of tactical nuclear weapons, both in Europe

25 and at sea.



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Q - the author
doesn't come
to a conclusion
to samples of
to another point

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1 ~~Now~~ ^{it will be difficult} in Europe, things are real tough, if we are
 2 ~~going to be able~~ ^{the Russians} to stop them without tactical nuclear weapons.
 3 On the sea, the Russians, if they use tactical weapons you
 4 ~~heard~~ ^{that on the sea if the Soviets did not use} what Admiral Holloway said, he said we'd do
 5 pretty well if they didn't use tactical weapons, ^{we might lose} maybe a
 6 40 percent less of our carriers, but it would be real tough
 7 if we had a nuclear war.
 8 Now, 40 percent ^{quite large} sounds real pretty big to me, ^{Think} the
 9 "real tough" sounds real bad to me, too. So I would say,
 10 as we go away from this meeting -- I may be irritating every-
 11 body with what I'm saying, but I really do think that every
 12 man here -- because I think men are alike -- would like to
 13 see war end ^{to see} / peace on earth ^{to see} / an opportunity to develop, as
 14 we can, individually, our own systems ^{1/m} competitively, but
 15 not by killing each other.
 16 It's ^{is} a horrible anachronism, that in 1977 we ^{are} have
 17 ^{still ing} to blow people's brains out, and I doubt if there was a single
 18 ^{arse} Jap that I killed ^{were probably} that wasn't a pretty good guy. The ones
 19 I captured, I found, ^{were} ~~to be~~ pretty good guys.
 20 So, I'm ^{believe} saying to you that I feel that these papers
 21 have been wonderfully important ^{in helping us} to us, to see the challenges
 22 ~~that are~~ ahead. And ^{fact} one thing that should ^{be brought to the} surface, ~~not only~~
 23 ^{attention of} among you here but in the country, ^{is} as a whole, the fact that
 24 we are now, both countries, ^{the Soviet Union} Russia and the United States
 25 ^{are now} frankly, looking at ^{the possibility of} something short of a nuclear war ^{-- something} which is



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1 called "tactical nuclear war" both in Europe and at sea.

2 ~~And the dimensions of that are in reverse, with regard to~~

3 ~~land and sea, as far as who gets hurt the worst.~~

4 But (it seems ~~like~~ ^{that} to me, when you ~~have~~ ⁱⁿ a situation

5 where both ~~might~~ ^{parties} gain ~~by~~ ^{from} some sort of ~~an~~ agreement, ~~if you~~

6 can police ~~the~~ ^{be} agreement ~~now~~ ^{an}, I ~~am~~ ^{am} not a man ~~that~~ ^{who} believes

7 in ~~just~~ ^{merely} signing papers. I think ~~agreements~~ to be effective,

8 ~~have to~~ ^{must} be mutually helpful, and, ~~if they can't be policed,~~

9 ~~perhaps nothing can be done about it.~~ But I would like to

10 see in my ~~--- before I pass off this earth ---~~ that nuclear

11 war of all kinds, tactical and otherwise, ~~would be~~ ended.

12 Now, I probably shouldn't have said what I said but,

13 you know, when somebody thinks something and thinks it deeply,

14 and I do, though I may be right or I may be wrong, I should

15 express it.

16 I go back to the point that ~~if you call~~ ^{is called} a man ~~an~~

17 enemy, he ~~is~~ ^{will} be an enemy. I believe all ~~mankind~~ ^{men} should love

18 each other. I believe we should have peace. I believe we ~~that~~

19 need ~~--- I'll now recur to the first part, lest I be run out~~

20 ~~on a rail --- I'll recur to what I said before in the beginning,~~

21 ~~where I do believe that~~ the greatest quest of man is to find

22 peace ~~and~~ ^{and} permanent peace, ~~but~~ ^{but} it should be with the liberty

23 of people, ~~not to be garnered by other nations or other people,~~

24 and their freedom should be protected.

25 ~~And I do feel that~~ the national defense of our

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1 country is the greatest bulwark of international peace today.
2 But ~~I wouldn't close all doors; I wouldn't forget there's a~~
3 possibility that there are human hearts abroad, as well.

4 (Applause.)

5 MR. HESSMAN: In theory, we should be going back to the
6 individual speakers and ask for their comments, but I will
7 exercise my prerogative and say I think this is the best
8 note on which to end the meeting.

9 I have been asked by AEI to thank everyone for
10 attending; to thank their many speakers for their very
11 thoughtful and articulate papers they presented; to remind
12 everyone, these papers will be available later, in transcript
13 form.

14 One final note, I will ask you all to give our
15 speakers and discussants this afternoon a big hand but, at
16 the same time, I think this hand should also be for the
17 staff members and directors of AEI, for the privilege we have
18 had of gathering together, for the work they did on our behalf,
19 and for the many, many good works in the foreign and defense
20 policy field that they have sponsored in the last few months,
21 and that they will continue to sponsor for years to come,
22 let us hope.

23 Thank you.

24 (Applause.)

25 (Whereupon, the proceedings were adjourned.)

eR10

COMMENTS ON "THE FUTURE OF SEA-BASED AIR"
BY NORMAN POLMAR

By William S. Lind

On balance, Mr. Polmar argues convincingly for the viability of seabased tactical aviation for the present and the near future, despite some overstatement of his case. In the latter category I must place his statements that, "Even against the Soviet Union the modern attack carrier . . . seems to present a viable threat," and that ". . . for the foreseeable future (the 12-carrier force's) capability for sea control and projection missions will remain high."

One might argue that the attack carrier presents a viable threat to Soviet forces under some conditions in certain locales. But to suggest that a carrier task force could operate effectively against the Soviet homeland would be to underrate both Soviet air and naval defenses. The OKEAN exercises, which Mr. Polmar cites, show the very considerable homeland defense capability of the Soviet navy. At least against the submarine component of Soviet naval forces, a carrier task group's defenses appear wholly inadequate to approach within striking range of the Soviet Union itself.

Similarly, to characterize the capabilities of our 12 carrier forces as generally "high" seems an overstatement. The projection capability probably does remain high although declining against many Third World states. But the sea control capability of our 12 carriers against not only the Soviet submarine force and increasingly against the submarines of smaller powers appears inadequate. While

some might suggest that the Navy has destroyers and frigates for ASW, the ASW effectiveness of surface ships was inferior to that of aircraft even in World War II and the submarine has improved its capabilities relative to the surface ship since that time. Sea-based air will be a most important component of any effective ASW force, and the limited number of S-3's on our 12 existing carriers, along with the LAMP's on the escorts, would not seem adequate to give a "high" sea control capability.

Mr. Polmar recognizes the need for sea-based aircraft in most missions, and ^{he} draws a logical conclusion from it: that we should trade planned investment in surface ships ¹/_M he mentions cruisers ¹/_M for larger numbers of air capable ships such as VSS and Air Capable DD-963's. In this he is fully correct. Most of the weapons systems on our cruisers, destroyers, and frigates ¹/_M 5" guns, Tarter, ASROC, torpedoes ¹/_M are of little effectiveness against present and future Soviet systems. The greater part of our escorts' capabilities is in on-board aircraft ¹/_M LAMPs ¹/_M and passive detection systems ¹/_M TACTAS. Clearly, greater total effectiveness is possible by trading typical surface ship weapons systems for more LAMPs ¹/_M or other aircraft ¹/_M which is to say, building aircraft platforms instead of cruisers, destroyers, or frigates.

The aircraft for these platforms must be ^{solid}VSTOL; CTOL aircraft require overly large and expensive platforms.

~~Mr.~~ Polmar notes the Navy's lack of enthusiasm for VSTOL. The Navy attitude is an unfortunate product of a fundamental misunderstanding of aircraft performance requirements. In the projection mission, high performance aircraft are often

- 3 -

required because the opponent's land-based air force includes high performance aircraft. But the Soviet navy has virtually no high performance tactical naval aircraft. A medium performance VSTOL, such as the AV-8B Advanced Harrier, has adequate performance for the sea control role: it can strike Soviet surface ships and intercept incoming "Backfires" well beyond the range of these systems' anti-ship missiles. As the Guam Interim Sea Control Ship tests demonstrated, the Harrier is useful in ASW. Because of the extraordinary maneuverability provided by the vectored thrust system, the Harrier is a highly capable air defense fighter, even against high performance aircraft. Yet, because the Navy thinks of aircraft performance only in terms of "higher-further-faster," the Harrier has been rejected and with it, VSTOL in the early 1980's by the Navy.

The most important point in ^{Polmar's} this paper originates not with ^{him} Mr. Polmar, but with Mr. James Woolsey, the Under Secretary of the Navy. If we are to reverse the trend in the naval "correlation of forces," a trend ^{that} which favors the Soviet Union, we must indeed "shatter the conventional wisdom," and ask, "How can I change the game?" Ultimately, as the question is asked, part of the answer is likely to be, "By replacing manned systems, such as sea-based aircraft, with unmanned systems." A fundamental technological trend of our time is for unmanned systems to increase in capability relative to manned systems. For a variety of reasons the special capabilities of the submarine being a major one the replacement of manned aircraft by missiles and RPV's

probably will not come as quickly at sea as on land. When it does occur, the ships we now build as aircraft platforms will adapt: sea-based aircraft are essentially modules sitting on the flat deck of a module carrier, and the deck cares little what variety of module it supports.

We must not let the current correctness of Mr. Polmar's advocacy of sea-based air hinder our acceptance of the replacement of manned with unmanned systems, any more than we should permit the vested interests of the "surface union" within the Navy to hinder the substitution of aircraft platforms for traditional cruisers, destroyers, and frigates.

Spangenburg

Author?

Overview - Navy V/STOL Aircraft ^{THE} Rationale Against

In view of the great impact of the V/STOL aircraft program on the future of the Navy, a ~~more~~ ^{of the program} detailed review ^{is warranted} ~~than has been provided in the papers involved in this session,~~ From the evidence publicly available, it appears that the decision makers have been victimized by overzealous salesmanship perhaps coupled with some ^{breakdown} ~~disconnects~~ in communications between the Navy's technical community and the program planners.

As now described, the Navy is to ^{transform itself} transition toward an all ^{submarine} V/STOL fleet of aircraft deployed on both aviation and nonaviation ships. A similar goal, believed achievable by some in 10 years, was suggested in the Bureau of Aeronautics in the early 1950's after the success of early developmental tests on "tail sitter" models. The twin problems of capability and cost, which caused abandonment of the plan then, remain, with little hope in the future for a simultaneous solution when compared ^{with} ~~to~~ more conventional approaches.

First, let us consider the case involving the large carrier and its ultimate replacement. We have the option of continuing to buy carriers with complements of conventional carrier aircraft, which we will call CATOAL, for Catapult Assisted Take-Off and Arrested Landing, or we can buy ships of the same size operating V/STOL aircraft of the same capability but without benefit of catapult and arresting gear. For this case, it can be shown that:

1

(A) Procurement and operating costs for ~~the~~ ^{3 of either type} ship ^{are} small compared ^{one third} ~~to~~ those of the air group, on the order of $1/3$.

①

(b) The differential in ship costs due to inclusion of catapult and arresting equipment is small, probably on the order of 10%^{percent}.

(c) The differential in air group costs between a new V/STOL group and a new CATOAL group is large, probably at least 50%^{percent} with individual design variations ^{costing an additional to percent} between 20% and 100%.

With these facts, V/STOL (can obviously) not be justified. In the real world, one must consider also the possibility of procuring not new CATOAL airplanes, but only more of those already in service. The weight differential between a new V/STOL and an old CATOAL would be reduced. The cost differential is less capable of treatment by broad generalizations ^{because of} due to the different production status of each of the service models. It is probable, however, that unless the total force level is increased, the old airplanes will cost even less than their new and lighter replacements. That issue, however, can be deferred for handling on a case-to-case basis, since any new carrier could handle the current aircraft.

For nonaviation ships, the issue is almost as clear-cut despite the confusion caused by discussion of both V/STOL A and V/STOL C for this application. If "C" were the only ^{V/STOL} for this application, and ^{it were} designed as the LAMPS III replacement, the decision on its development could be deferred since there is no coupling with the carrier ^{issue} or the other ^{aircraft} V/STOL designs. If V/STOL A is assumed capable of use on modifications of the DD-963 and other larger ships, it must be considered against LAMPS III and other helicopters. The low disk loading helicopters are virtually certain to be more successful within their own operating envelope, but have limitations in speed and altitude. At the present time, it would be difficult to

justify the probable cost spread of two or three times between V/STOL A and LAMPS.

In addition to the large unit production and operating cost penalties associated with the V/STOL program, it is burdened with by far the most expensive R&D program ever laid out for naval aviation. That cost, of course, must also be amortized.

The V/STOL program should be drastically revised. With naval aviation already seriously underfunded from its position vis-à-vis the threat for years past, the plan greatly aggravates the situation. The issue of small, medium, or large carriers should be made on the merits of each and not confused with the V/STOL issue. On a positive note, carriers and carrier based airplanes have done their job well. The world's most capable tactical STOL aircraft are now deployed. The concept is proven, sound, and can do the job in the future.