

~~TOP SECRET~~ ~~RESTRICTED DATA~~
~~TOP SECRET/RESTRICTED DATA~~

4

ACDA/3050/Final Draft

*11/10/53
ACDA
Final Draft*

1202

THE U.S. ARMS CONTROL AND DISARMAMENT AGENCY DURING THE
JOHNSON ADMINISTRATION (U)

II. POLICY AND NEGOTIATIONS

F. FISSIONABLE MATERIALS PRODUCTION CUTOFF
AND TRANSFER

SANITIZED
E.O. 12958, Sec. 3.6
NLJ 91-165
By CB, NARA Date 1-15-97

~~TOP SECRET/RESTRICTED~~

~~TOP SECRET RESTRICTED DATA~~

GROUP 1
Excluded from automatic
downgrading and
declassification

~~TOP SECRET RESTRICTED DATA~~

~~TOP SECRET/RESTRICTED DATA~~

FISSIONABLE MATERIALS PRODUCTION CUTOFF AND TRANSFER

Background

President Eisenhower first proposed a cutoff on the production of fissionable materials for weapons purposes in a letter of March 1, 1956, to Premier Bulganin. Next year the United States coupled the production cutoff with a proposal to transfer fissionable materials from existing stockpiles to peaceful uses. The cutoff and transfer were included in the U.S. treaty outline of April 18, 1962, and they were also offered as collateral measures.¹

6.3 By a Presidential decision of November 20, 1962, the United States was prepared to agree to transfer 50,000 kilograms of weapons-grade U-235 to peaceful purposes if the Soviet Union would make an equivalent transfer of 25,000 kilograms. The United States could go as high as [REDACTED] but would not mention this figure in the negotiations. It would begin by suggesting 60,000 for the United States and 40,000 for the USSR in order to find out whether the Soviets were bothered by the ratio problem.²

Accordingly, the American delegation at Geneva informally discussed the cutoff and transfer with the Soviet delegation

¹See "Background Information on the Non-Dissemination of Nuclear Weapons" (Disarmament Document Series, Ref 382), pp. 9-13, and "Review of Negotiations on a Fissionable Materials Production Cutoff and Transfer, 1965-1968".

²Enclosure to memorandum from Foster to Committee of Principals, May 14, 1964, Confidential.

~~TOP SECRET/RESTRICTED DATA~~

~~TOP SECRET RESTRICTED DATA~~

GROUP 1
Excluded from automatic
downgrading and
declassification

in April 1963. The United States suggested the possibility of asymmetrical transfers of U-235 to peaceful uses under international safeguards. As an illustration of asymmetry, the United States mentioned the 60,000-40,000 ratio. The Soviet delegation rejected the cutoff and transfer as valueless and stated that symmetry or asymmetry of the amounts transferred had no bearing on the Soviet position.¹ Later, the United States publicly repeated the offer and submitted to the ENDC draft treaty language in which the transferred amounts were left blank in order to indicate flexibility.² The Soviet Union rejected this offer on the ground that no nuclear weapons would be destroyed and existing stockpiles would not be reduced.³

In his State of the Union address of January 8, 1964, President Johnson announced that he was initiating a 25 percent cut in uranium production and shutting down four plutonium reactors.⁴ In a message of January 21 to the ENDC, he said that the United States was willing to join with the Soviet Union in a plant-by-plant shutdown, with mutual inspection. We had already started in this direction and were willing to accept appropriate international verification.⁵

¹From Geneva, tels, DISTO 1267, Apr. 18, 1963 and 1285, Apr. 29, 1963, Confidential.

²Documents on Disarmament, 1963, pp. 332-333, 327 ff.

³Ibid., pp. 337-338.

⁴Ibid., 1964, p. 4.

⁵Ibid., pp. 7-9.

On April 20 he announced a further reduction in U.S. production of enriched U-235 to be carried out over a four-year period (1965-1969). The net reductions were to be 20 percent for plutonium and 40 percent for uranium.¹ By previous arrangement, Premier Khrushchev and Prime Minister Douglas-Home also made announcements on the reduction of fissionable materials production. Premier Khrushchev said that the Soviet Government had taken the following decision:

1. To stop straightaway the construction of two new large atomic reactors for the production of plutonium.
2. During the next few years to reduce substantially the production of uranium U-235 for nuclear weapons.
3. To allocate accordingly more fissionable materials for peaceful uses - in atomic power stations, in industry, agriculture, medicine and in the implementation of major scientific-technical projects, including the distillation of sea water.²

There were no arrangements for verifying these "cutbacks," although ACDA Director Foster stated at Geneva that we would accept IAEA inspection of one of our shutdown reactors.³

New Verification Proposal

The cutoff and transfer were included in the Johnson program of January 21, 1964,⁴ and discussed by Mr. Foster at an early meeting of the ENDC.⁵ On May 14, Mr. Foster sent the Committee

¹Ibid., pp. 165-166.

²Ibid., pp. 166-168, 171.

³Ibid., pp. 35-36.

⁴Ibid., 1964, pp. 7-9.

⁵Ibid., pp. 44-48.

of Principals a draft position paper which suggested exploring the possibility of using IAEA inspection for declared facilities and adversary inspection of undeclared facilities. Under these arrangements, the IAEA would inspect facilities that the parties declared to be engaged in fissionable materials production, and each side would have the right to conduct inspections in order to find out whether any undeclared production facilities were operating.¹

6.3 The JCS saw some merit in expanding the IAEA role but regarded resident adversary inspection of declared facilities as necessary until IAEA safeguards were strengthened. They considered the transfer of large quantities of weapons-grade material to IAEA as dangerous in the absence of adequate control. They found that the cutoff would be advantageous to the United States if it took place by July 1, 1965, since the United States would then have met most of its stockpile requirements while the Soviet Union was still lagging. Thereafter, however, the American advantage would taper off and disappear by 1970. An early cutoff would also preclude the Soviet Union from deploying a large ABM system. They warned, however, that American ABM deployment would require a reevaluation of the cutoff. They questioned the desirability of transferring [REDACTED] and stated that the

¹Foster to Committee of Principals, May 14, 1964, Confidential.

b.3

combined cutoff and transfer needed further study.¹ Secretary of Defense McNamara regarded the ACDA paper as basically consistent with the Presidential decision of November 1962 but cautioned that the American delegation should not go over [REDACTED] at the present time.²

No change was made in the transfer proposal. On June 25, Mr. Foster submitted a working paper on verification of the cutoff to the ENDC. The IAEA would inspect declared facilities, and it was recognized that this would require a "strengthening of IAEA organization and procedures." Inspection of undeclared facilities would be carried out on an adversary basis.³ U.S. Ambassador Timberlake pointed out the usefulness of the cutoff as a non-proliferation measure and suggested that non-nuclear as well as nuclear nations might accede to a cutoff agreement. Soviet Ambassador Tsarapkin criticized the proposal on the ground that it might result in the disclosure of stockpile levels and endanger the security of his country.⁴ Although Mr. Foster endeavored to reassure the Soviets on this point,⁵ their attitude remained negative.

Proposed Approach to New Soviet Leaders

On November 24, a month after Khrushchev's ouster, Mr. Foster sent the Principals a proposal to approach the new

¹JCS, memorandum for Secretary of Defense (JCSM-449-64), May 28, 1964, Secret.

²McNamara to Foster, ltr., June 3, 1964, Secret.

³Documents on Disarmament, 1964, pp. 235-238.

⁴"Background Information on the Non-Dissemination of Nuclear Weapons," p. 13.

⁵Documents on Disarmament, 1964, pp. 399-401.

Soviet leaders and included the cutoff and transfer in the list of subjects to be discussed with them. He noted that it was not clear that the Soviet Union had in fact reduced production in line with the "cutbacks" announcement of April. If we could ascertain that they had done so, however, a new effort for a cutoff should be undertaken. The cutoff proposal could be coupled with an offer to transfer an agreed quantity of fissionable material to peaceful uses and to combine this transfer with the demonstrated destruction of nuclear weapons under bilateral American-Soviet arrangements. He pointed out that the Soviets had rejected previous transfer proposals and argued that it was important to start destroying nuclear weapons. The new proposal would force them "to face the issue...and destroy their present propagandistic position."¹

After receiving informal comments on this paper, Mr. Foster omitted the cutoff and transfer provision from a revised version which he circulated to the Principals on December 3.²

¹Foster to Committee of Principals, memorandum, Nov. 24, 1964, Secret, with attached paper, "Subjects to be discussed with the U.S.S.R.," Nov. 23, 1964, Secret.

²Foster to Committee of Principals, memorandum, Dec. 3, 1964, Secret, with attached paper, "Subjects to be discussed with the USSR," Dec. 3, 1964, Secret.

The question of the April cutbacks nevertheless came up at their December 21 meeting, and AEC Chairman Seaborg emphasized that the uncertainty regarding Soviet performance made it necessary to apply safeguards to any further cutbacks or non-proliferation agreements.¹

On February 24, 1965, Mr. Foster sent the Principals a draft Presidential message to the Soviet leaders. This draft reinstated the cutoff and transfer. We would ask about the April 1964 cutbacks and indicate that we would agree to the destruction of some nuclear weapons in a cutoff and transfer agreement. The President would suggest naming Mr. Foster as his representative in bilateral talks on the cutoff and other disarmament measures.² Ambassador Thompson questioned this draft. He was concerned that inquiry about the cutback might disclose our intelligence capability to the Soviets. He also thought that the Soviets could expose the weapons destruction proposal as a cynical move for "disposing of

¹Memcon, Dec. 21, 1964, Secret.

²Foster to Committee of Principals, memorandum, Feb. 24, 1965 Secret/Nodis, with attached draft msg., Feb. 24, 1965, Secret/Nodis.

obsolete missiles."¹

ACDA Proposal for Expanded Transfers and Weapons Destruction

On December 31, 1964, Mr. Foster sent the Principals a draft paper proposing that we reaffirm our previous transfer offer and add 4,000 kilograms of Pu-239. We would obtain the materials for transfer by the demonstrated destruction of nuclear weapons. In an accompanying memorandum, ACDA argued that the transferred materials could be obtained from weapons scheduled for retirement. It also noted that the Soviet production rate was rising and that Soviet stocks could equal ours by 1970.

6.3 [REDACTED] it would be to our advantage to get an early agreement. ACDA also outlined methods for verifying the destruction of weapons without disclosing design information.

Mr. Foster asked the Principals to consider four questions:

(1) Does the offer to transfer plutonium in addition to U235 significantly differ from the offer to halt production of fissionable material previously found to be acceptable?

(2) Is the military balance likely to be altered in a unfavorable way by the proposed measures?

¹Thompson to Rusk, memorandum, Feb. 26, 1965, Secret.

(3) Is the US prepared to consider a ratio greater than the 4000 kg vs 2500 kg discussed for plutonium such as the 2:1 ratio conditionally approved by the President for U235?

(4) If the Soviets propose larger amounts of plutonium than cited in the proposal, can the US respond favorably and at what ratios?¹

The JCS reacted negatively. They still agreed that an early production cutoff would be to the U.S. advantage but felt that the transfers would adversely affect their future weapons program by making it impossible to obtain the necessary materials through cannibalizing obsolete weapons. While it was "virtually impossible" to determine the effect on the military balance, the fissionable materials shortages would reduce projected stockpiles and "seriously reduce the flexibility of the United States to respond to changing weapon mixes and new weapon requirements (e.g., nuclear warheads for an ABM system) which may arise in the future." They also noted that expansion of Chinese production could adversely

¹Foster to Committee of Principals, memorandum, Dec. 31, 1964, Top Secret, with attached draft position paper, "Destruction of Nuclear Weapons and Transfer of Fissionable Materials Therefrom to Peaceful Uses Under International Safeguards (C)" (ACDA 2368), Top Secret, and memorandum, "Military Implications and Verification Aspects of the Draft Proposal on Weapons Destruction (Preliminary) (ACDA 2369), Top Secret.

affect the balance in the long run. For these reasons, they returned negative answers to questions (3) and (4).¹

On the other hand, Secretary McNamara considered the cutoff so clearly advantageous to the United States that he was willing "to consider any reasonable extensions of the proposal which in themselves are not inimical to US security and which would hasten the achievement of the cutoff." He concurred in the ACDA proposals but considered it premature to determine the quantities of plutonium to be transferred. He did not think that the new proposal should be publicly exploited if the Soviets showed no interest in private discussions. Any verification plan should be reviewed by the Department of Defense and other interested agencies before the United States became committed.²

On March 19 the Deputies to the Committee of Principals agreed on the following points:

(1) We would not propose a specific amount of plutonium but offer to transfer the "plutonium associated with the weapons".

¹JCS to the Secretary of Defense, memorandum (JCSM-66-65), Jan. 29, 1965, Top Secret/Restricted Data.

²McNamara to Foster, ltr., Feb. 23, 1965, Top Secret.

(2) We would offer "several thousand" weapons.

(3) An inter-agency group would study the impact on U.S. and Soviet security of a plutonium cutoff and transfer.

(4) There would also be further studies of security and classification problems in connection with the destruction of nuclear weapons, but these studies were not a prerequisite for making an initial proposal to the USSR.¹

Accordingly, a revised ACDA paper of April 5 did not specify the amounts of plutonium that would be transferred but stated that the ratio between Soviet and American plutonium "should be approximately the same as for the U235."²

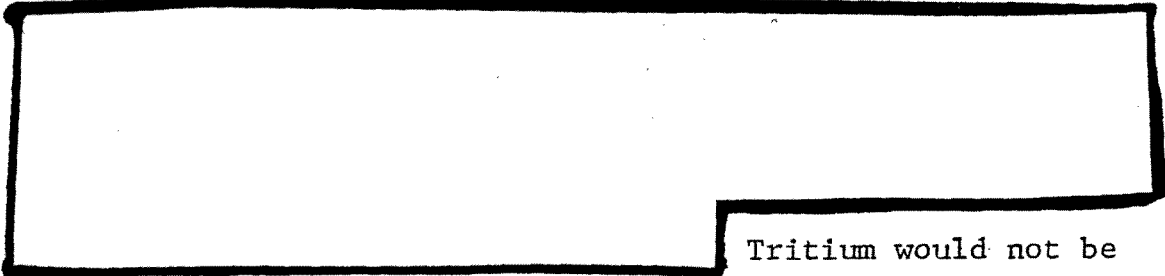
The Committee of Principals recommended that the new measure be used tactically at the Disarmament Commission without previous consultation with the USSR.³ In its revised form, the position paper stated that plutonium should be included in the transfer but did not specify the amount.

¹Fisher to Committee of Principals, memorandum, Mar. 22, 1965, Secret.

²Fisher to Committee of Principals, memorandum, Apr. 5, 1965, Secret.

³Summary of Action, Meeting of the Committee of Principals, Apr. 22, 1965, Secret.

In order to obtain 60,000 kg. of U235 by destroying weapons,



6.3

Tritium would not be transferred. The paper also outlined several alternative ways of taking the tritium out of the weapons and keeping it for future use.¹

The weapons-destruction proposal was not, however, surfaced in the Disarmament Commission or in the ENDC session of 1965. Both the United States and the Soviet Union reaffirmed their previous positions. Many nonaligned states wished to tie the cutoff and other measures to a non-proliferation agreement, but the United States opposed this approach and made it clear that the Johnson program was not a "package." A Disarmament Commission resolution of June 25 recommended that the ENDC give "special priority" to a non-proliferation treaty and "close attention" to suggestions for a program of related measures. In the ENDC, the nonaligned Eight submitted a

¹Foster to Committee of Principals, memorandum, Apr 24, 1965, Secret, with attached paper, "Destruction of Nuclear Weapons and Transfer of Fissionable Material Therefrom to Peaceful Uses Under International Safeguards" (C), Secret.

memorandum stating that a non-proliferation treaty should be "coupled with or followed by tangible steps" toward limiting, reducing, and eliminating nuclear weapons and delivery vehicles.

Ambassador Goldberg unveiled the weapons-destruction proposal in an address of September 23 to the General Assembly. The 60,000 and 40,000 kilograms of U-235 would be obtained by the destruction of nuclear weapons chosen by each side from its own stocks, and the United States was also willing to add plutonium to the transferred material, which would be placed under IAEA or equivalent safeguards. There was no response from the Soviet Union.¹

¹"Review of Negotiations on a Fissionable Materials Production Cutoff and Transfer, 1965-1968," pp. 1-5. Adverse Congressional reactions kept the weapons-destruction proposal from being introduced in the ENDC (to Geneva, tel. Todis 1836, Sept. 2, 1965, Secret).

ENDC Negotiations (1966)

In a message of January 27, 1966, to the ENDC, President Johnson urged agreement "not to increase, and indeed, to reduce, nuclear materials in weapons stockpiles." We took a number of steps to elaborate on the cutoff, transfer, and weapons destruction proposals. On March 8, Mr. Fisher discussed weapons destruction in detail and submitted a working paper to the ENDC. Later, Mr. Foster submitted a paper on inspection procedures for shutdown plutonium reactors. A U.S. expert described a method of monitoring shutdown reactors in great detail, and we invited other nations to observe a demonstration of the method at the Hanford plant.

The Soviet Union continued to oppose our proposals. Soviet representatives argued that they would not reduce the threat of nuclear war and that weapons destruction would merely eliminate obsolescent weapons. In his message of February 1 to the ENDC, Premier Kosygin proposed a program for complete nuclear disarmament, but the Soviet delegation at Geneva did not develop it in any detail.

The nonaligned nations generally favored the cutoff, and some of them wished to link it with a non-proliferation treaty. Sweden proposed July 1, 1967, as the target date for a cutoff agreement, and we welcomed the suggestion.¹

Recent Developments

Subsequent negotiations came to focus almost exclusively on the non-proliferation treaty. Several non-nuclear nations wished to list the cutoff in the treaty as one of the measures the nuclear powers would be obliged to negotiate on, and India wanted the treaty to include a provision banning the manufacture of nuclear weapons. Both the United States and the Soviet Union opposed linking the treaty to nuclear disarmament or listing specific measures in the treaty.² The treaty, opened for signature on July 1, 1968, obliges all parties to negotiate on "measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament" and on general and complete disarmament.³

¹"Review of Negotiations on a Fissionable Materials Production Cutoff and Transfer, 1965-1968".

²See above, chapter B.

³"Review of Negotiations on a Fissionable Materials Production Cutoff and Transfer, 1965-1968".

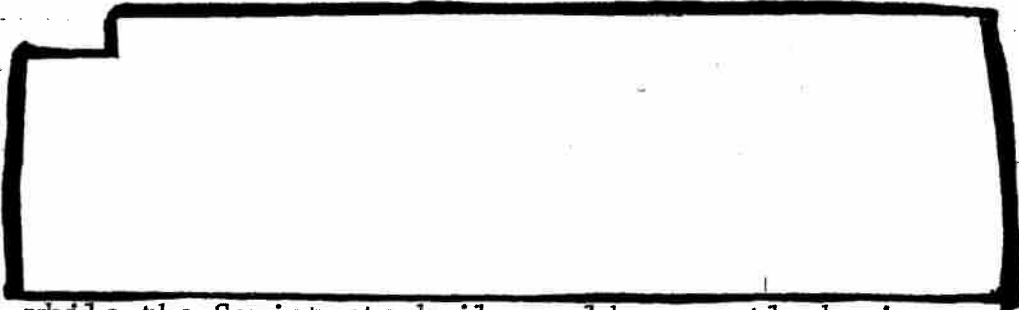
Although the cutoff remained part of American policy, ACDA encountered opposition to including this measure in the President's message of July 1968 to the ENDC. AEC said that careful study would be needed and suggested that we could simply take credit for our unilateral cutbacks; we had actually shut down 7 of our 14 plutonium production reactors and reduced U-235 production by two thirds.¹ The JCS wished to delay reintroducing the proposal until the Principals could analyze the report of an interagency working group which had been studying the question.²

Mr. Fisher asked Rusk to seek Presidential authorization for our delegation to reaffirm the previous position. In a draft memorandum to the President, ACDA expressed the belief that withdrawing support for the cutoff and the comprehensive test ban (also questioned by the AEC and the JCS) could be disastrous for the non-proliferation treaty, which many non-

¹Seaborg to the President, ltr., July 13, 1968, Secret.

²Johnson (Jt. Staff) to Secretary of Defense, memorandum (DJSM-859-68), July 12, 1968, Secret.

nuclear nations hoped would be followed by other disarmament measures. Moreover, the cutoff would be advantageous for the United States and probably unacceptable to the USSR:



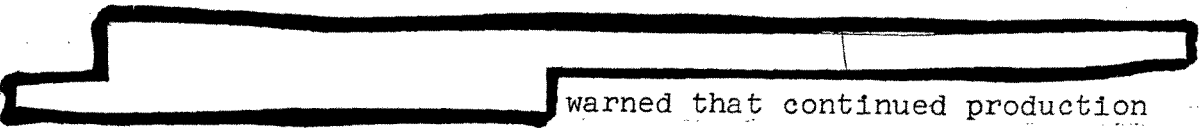
while the Soviet stockpile would currently be insufficient to satisfy all estimated Soviet needs. Finally, the acceptance of this measure by the Soviet Union would involve extensive inspection of Soviet atomic energy facilities such as the U.S. has already voluntarily agreed to accept when safeguards are applied under the Non-Proliferation Treaty. In view of these disparities and the inspection requirements, the cutoff is believed unlikely to be acceptable to the USSR.¹

The ACDA recommendation was not approved.

As the ENDC session neared its end, Mr. Foster unsuccessfully attempted to obtain Defense and AEC approval of an ENDC speech reaffirming our support for the cutoff and transfer. He argued that the non-nuclear-weapon states would regard them as

¹Fisher to Rusk, memorandum, July 22, 1968, Secret, with attached draft memorandum for the President, "U.S. Positions at the ENDC on Comprehensive Test Ban and a Cutoff of Fissionable Material for Weapons Purposes (U)", Secret.

measures balancing the obligations they had undertaken in the non-proliferation treaty. If the Soviet Union agreed with the proposal, it would accept IAEA inspection of its nuclear facilities. The present stockpiles of highly enriched U-235 and plutonium "would meet or exceed our requirements through 1976 for all presently approved weapons programs." We had already virtually stopped producing U-235 for weapons purposes and planned to produce only a small amount of plutonium over the next two years.

b.3 

warned that continued production would allow the USSR to gain on us, as intelligence estimates showed. Consequently, a cutoff in 1968-1970 would be advantageous to the United States, but postponement would reduce its usefulness:

...A cutoff in 1972 or later would have only a small effect on the accumulation of that amount of fissionable materials calculated to be necessary for USSR top priority and second priority military requirements. A cutoff in 1976 or after would appear to have no direct military effect, because the availability of fissionable materials for military uses will be more than any predicted requirements can utilize. In view of these disparities and the inspection requirements, the cutoff is believed unlikely to be acceptable to the USSR.

The ACDA study (Project IMPACT) had now been completed, and it concluded that "our assured destruction capability would be

maintained with the postulated cutoffs."¹

The JCS opposed a cutoff at this time. They thought that a cutoff would have been advantageous on balance if an agreement could have been concluded in 1965, but considered that uncertainties on future weapon requirements and material availability made it "impossible to rule out, with reasonable risk, a potential for significant disadvantage to US interests." They were not satisfied with the ACDA study and asked that it be terminated. They held that the question could not be settled by the systems analysis approach used in the study, since it had too many uncertain parameters and multiple scenarios and relied too heavily on intelligence estimates with a wide margin of error. If a cutoff should later be found to be in our national interest, they would not object to the ACDA position on verification provided that we were prepared to exercise our right of withdrawal from the agreement, without compromising our detection methods, if clandestine facilities were detected. They opposed the transfer proposal and the plant-by-plant shutdown but did not object to demonstrated weapons destruction.²

¹Foster, memorandum to Secretary of Defense and AEC Chairman, "Approval of Draft Speech to ENDC on Cutoff," Aug. 16, 1968, with attached draft speech, Unclassified, and paper, "Rationale for Approval of Draft Speech to ENDC on Cutoff (U), Secret/Restricted Data.

²Halperin (Defense/ISA) to Fisher, ltr., Sept. 6, 1968, Secret, with attached JCS memorandum for Secretary of Defense (JCSM-519-68), Aug. 24, 1968, Secret.

AEC Chairman Seaborg informed Foster that his agency would study its ability to meet foreseeable requirements for fissionable material and tritium under a cutoff and report to the members of the Committee of Principals. He was concerned whether our 1964 verification proposals were still adequate in view of the great expansion of uranium enriching services since that time and thought that the monitoring procedures we had then outlined should be studied. He also thought that our proposal for a plant-by-plant shutdown should be reexamined, since we had completely closed two production reactors and placed five others in "standby" during the past four years.¹

¹Seaborg to Foster, ltr., Oct. 9, 1968, Secret.

ACDA/IR:RWLambert:frc:mm
9/19/68-11/7/68