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**PRIVATIZATION OF STATE-OWNED UTILITY ENTERPRISES:
THE ALASKA CASE REVISITED THIRTY YEARS LATER**

by

Professor Douglas N. Jones
School of Public Policy and Management
The Ohio State University

and

Professor Bradford H. Tuck
School of Public Affairs
The University of Alaska at Anchorage

THE NATIONAL REGULATORY RESEARCH INSTITUTE

The Ohio State University
1080 Carmack Road
Columbus, Ohio 43210-1002
Phone: 614/292-9404
Fax: 614/292-7196
Website: www.nrri.ohio-state.edu

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ABSTRACT

There is a great deal of current interest in the phenomenon of privatization of public utilities that is taking place around the world. Privatization is one of several forms of industry restructuring that is going on. "Commercialization" is perhaps the broader phenomenon that encompasses—in addition to privatization—intermediate approaches like "corporatization" (making the utility service behave more like a firm and less like an agency), contracting and leasing for privately-provided service, and joint ventures of the "capitalization" or "crown corporation" public/private type. At least nine countries in Latin America, a dozen countries in Europe, and a half dozen countries in Asia are in one degree or another transforming state-owned and operated businesses. Government owned telephone facilities are commonly candidates for sale, and privatization of this sector has recently taken place (or is well underway) in countries like Argentina, Bolivia, Chile, Mexico, Malaysia, New Zealand, Hungary, Poland, and elsewhere. What is less readily recalled is that the United States had its own dramatic case of privatization of a nationally owned telephone enterprise thirty years ago when Congress authorized the sale of the U.S. Air Force's Alaska Communication System into the private sector. Bought by RCA in 1968 for \$29 million, the current owner is AT&T with several other owners in between.

This paper looks backward to the motivations for privatization of ACS and the hoped-for results and weighs these against what actually has eventuated. Too seldom

is such a retrospective done on a public policy initiative. Our findings were that it was altogether a success: private investment in communications infrastructure markedly increased as did revenues, tax contributions, and employment; prices for telephone service declined continuously, and the quality and availability of service greatly improved--particularly in urban areas. The paper also lightly compares and contrasts the Alaska case of telephone utility privatization with recent global privatization initiatives as to motivations, methods, and conditions that hurt or enhance the chances for success. The institutional setting is noted to be a powerfully determining factor.

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FOREWORD

This report is part of our Occasional Paper series. In that series we try to bring to the attention of regulators a wider range of topics or dimensions of the regulatory field than may be captured by problem-driven research. In a period of privatization in reforming countries around the world we felt it would be of general interest to revisit the unusual case of thirty years ago when the United States sold off a government-owned telephone utility into the private sector. The motivations and aspirations surrounding the sale are instructive for today's privatization movement. It can be hoped that the outcome will ultimately be as good as in the Alaska experience.

Douglas N. Jones
Director, NRRI
Columbus, Ohio
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INTRODUCTION

There is a great deal of current interest in the phenomenon of privatization of public utilities that is taking place around the world.¹ At least nine countries in Latin America, a dozen countries in Europe, and a half-dozen countries in Asia are in one degree or another transforming state-owned and operated businesses. Government owned telephone facilities are commonly candidates for sale, and privatization of this sector has taken place (or is well underway) in countries like Argentina, Chile, Mexico, Malaysia, New Zealand, Hungary, Poland, Belgium, and elsewhere.² What is less readily recalled is that the United States had its own dramatic case of privatization of a nationally owned telephone enterprise some twenty-eight years ago when Congress authorized the sale of the U.S. Air Force's Alaska Communication System (ACS) into the private sector. Bought by RCA in 1968 for \$29 million, the current owner is AT&T with several others in between. This article looks backward to the motivations for privatization of ACS and the hoped-for results, and weighs these against what actually has eventuated. Too seldom is such a retrospective done on a public policy initiative. It also compares and contrasts the Alaska case of telephone utility privatization with

¹Privatization is one of several forms of industry restructuring that is going on. "Commercialization" is perhaps the broader phenomenon that encompasses—in addition to privatization—intermediate approaches like "corporatization" (making the utility service behave more like a firm and less like an agency), contracting and leasing for privately-provided service, and joint ventures of the "capitalization" or "crown corporation" public/private type. Sometimes the term "liberalization" is used to describe the broad movement.

²Of course the privatization of British Telcom in the U.K. was accomplished a good bit earlier (1984) and in some sense "started it all."

recent global privatization initiatives. Notable similarities are found despite the obvious differences in cultural circumstances.

MOTIVATIONS FOR THE SALE OF ACS

At least a half-dozen reasons may be cited for the privatization of ACS in 1966-1967. Before doing so, however, a brief chronology of events leading to the actual sale of the Alaska Communications System is helpful to the story.

Beginning in the early 1960s, the Army, Air Force, and the Bureau of the Budget showed an interest in preparing for the sale of ACS. A year after the Air Force inherited the system from the Army it commissioned a study on the financial circumstances of the Alaskan long-lines communications activities and their salability.³ In 1965 a definitive study was done by the Air Force for the Secretary of Defense presenting "the Air force position" favoring sale of ACS, setting out guidelines for a public interest disposal of the system, and posing near-term alternative solutions should a sale not be authorized or made.⁴ About the same time the Air Force contracted for a management study on the feasibility of financing ACS under an

³*Middle West Study*, prepared for the Air Force at Air Force request by the Middle West Service Co., September 1, 1963.

⁴*Perry Report*, submitted by the Deputy of Transportation and Communications as an attachment to a document sent by the Assistant Secretary of the Air Force to the Assistant Secretary of Defense (Installations and Logistics), March 9, 1965.

industrial fund concept, used elsewhere by the military to apply more of a "business approach" to some of its commercial-type activities.⁵

Meantime, an ad hoc presidential committee (The Federal Field Committee for Development Planning in Alaska) which was operating in Alaska to help do the analytical work in rebuilding the state after the 1964 Alaska earthquake, worked closely with the Secretary of the Air Force's office in framing the DOD proposal for sale. The Federal Field Committee further recommended to the parent Cabinet Committee on Alaska that the sale be authorized.⁶ By the turn of the year, legislation was introduced in the 89th Congress in both houses for disposal of the government-owned, long-line communication facilities in Alaska, and letters were sent by the Air Force to seven prospective private bidders.⁷ These letters enumerated the plant and equipment that was up for sale or lease and inquired about their interest. Somewhat surprisingly—and surely ironically in light of its recent acquisition of the Alaska telephone system for a reported \$365 million—AT&T voiced disinterest in the sale and declined to join the bidding for the \$29 million asset disposal price. A day of hearings was held in the U.S. Senate in May 1966, the legislation was passed there in October, but time ran out for

⁵*Stone Study*, prepared for the Air Force at Air Force request, 1965.

⁶*Economic Development in Alaska*, A report to the President prepared by the Federal Field Committee for Development Planning in Alaska, August 1966, p. 36.

⁷U.S. Senate, Hearings Before the Preparedness Investigating Subcommittee, Committee on Armed Services, 89th Cong. 2nd Sess., on S.2444, "Government-Owned Long Lines Communication Facilities in the State of Alaska," May 31, 1966, p. 11.

consideration in the House of Representatives. Legislation was reintroduced in January 1967 and became law on November 14, 1967.⁸

An important motivation for sale of the Alaska Communication System was the realization by the Air Force and the Department of Defense that ACS was always going to be a budget problem for them. Faced with increasing growth of private demand for communications services in Alaska, the resulting need to increase investment in the system was not likely to be met in annual budget battles with competing weapons and personnel requirements within the Department of Defense—or, for that matter, within the Air Force itself or the Congress. This consideration is the close counterpoint to the motivation of foreign countries now privatizing their utilities (including telephone) on grounds of the difficulty in servicing existing public debt for these enterprises, borrowing additional money for expansion, or deploying scarce resources away from competing needs.

A second motivation for the sale of ACS was worry over the need for modernization and efficiency improvements in serving the communication needs of Alaskans. As of 1967, the system had gone seven years without capital improvements.⁹ There was no direct distance dialing, no channel capacity for live TV, Telex, news facsimile transmission, or private lease lines, EDP or data transmission facilities. Employment levels to run ACS were relatively high and cost consciousness

⁸*Public Law 90-135*, 90th Congress, S.223, November 14, 1967.

⁹Hearings on S.2444, *op. cit.*, p. 49.

was probably not a watchword. It was felt that a private entity would have the incentive and the wherewithal for efficiency improvements through modernization of equipment and operations. (Partly for this reason the Air Force favored outright sale of ACS rather than a leasing of facilities or contracting-out the operation of ACS, i.e., it would still be responsible for providing the network assets.) A belief in the superior efficiency and readiness to modernize on the part of private companies also characterizes current reasons for utility privatization in other countries.

A third reason was the aversion on the part of the Air Force to "meeting the public" in a continual business relationship. The military was always more or less uncomfortable in retailing communications and all that is involved, e.g., billing, collections, customer service, marketing. Moreover, it was a chance to redeploy into other more central military operations some portion of the 900+ employees that worked at ACS. This motivation is not really found in the privatization movement in other countries. For one thing, state-owned enterprises (SOEs) are typically not run by the military and, for another, the SOEs are often viewed as sources of public employment for the citizenry which are only reluctantly relinquished.

A fourth element in the sale of ACS is society's widespread ideological preference for private ownership of anything that is commercially feasible. This is to say, that as long as telephone and telegraph activity in Alaska remained below the financially viable level in revenue/cost terms there was little call for privatization. With growth in usage, indications of additional significant pent-up demand, and collections

that annually exceeded likely attributable costs of providing service the idea of sale into private hands became increasingly salient. This motivation also is one that does not have a clear counterpart in privatization overseas.

Relatedly, a fifth reason behind the sale of ACS was the qualitative one of "normalizing" Alaska as a state. What is being said here is that, while recognizing individual differences, public policy at the broadest level has an interest in all of the nation's states having fundamental similarities. Thus, Alaska having achieved statehood politically just eight years before, needed to amalgamate itself into the Union fiscally, structurally, and perhaps otherwise. One of these aspects of fundamental similarity was a privately-owned rather than a state-owned infrastructure where possible. This federalist aspect is probably not found elsewhere currently with the possible exception of Canada.

A sixth factor, and one that is sharply mirrored in utility privatization rationales in other countries, was hoped-for economic development. Always a powerful force, virtually all the parties to the sale cited the encumbrance that an outdated communication system posed for economic growth in Alaska and, conversely, the likely benefits to the development of the state's economy that a modernized, efficient, and affordable system would provide.¹⁰ This belief in the linkage between infrastructure (a

¹⁰*ibid.* The most thorough case for this was laid out in the testimony of Mr. Joseph H. FitzGerald, Chairman, Federal Field Committee for Development Planning in Alaska, Hearings on S.2444, pp. 47-51.

relatively little used term at the time) and economic activity is now a driving force in privatization efforts everywhere.

Finally, there was the motivation of expanding the tax base in Alaska. Being a big state with a very small tax base occasioned by constrained growth, a huge amount of public lands, and a large public sector (federal, state, and local), the opportunity to place initially about \$30 million in valuation on the property tax rolls in Alaska from the privatization of ACS was particularly attractive. Moreover, the prospect of additional tax receipts to the state based on expanded sales volumes by the winning private bidder further enhanced the transaction. Foreign governments typically feature this motivation when securing legislation and citizen support for the sale of SOEs into private hands.

The commonalities between the motivations for privatization of commercial telecommunications service in the U.S. case of Alaska in 1966-1967 and the current cases of utility privatization around the world now more than a quarter century later have been identified above. Some qualifications should be acknowledged, however. It is, of course, a much larger leap to go from a history of national public enterprises to private ones than to merely "adjust" the ownership matter in one state against the backdrop of traditional private ownership. Also, it really cannot be said that the U.S. is in any way starved for new capital or had serious difficulty with servicing debt.¹¹ Not

¹¹However, in the course of the Air Force's testimony explaining its desire to sell the Alaska telephone system the Deputy Assistant Secretary said, ". . . proposals to appropriate funds for the purpose of modernizing and expanding facilities for commercial communications in Alaska have, of course, had to

only are the magnitudes of the changes quite different, the institutional differences as to the readiness with which the population accepts changes in ownership are substantial. Still, similarities abound, and it is noteworthy that both the Alaska case and recent overseas cases have all involved getting legislative approval in one degree or another to authorize privatization of state-owned utility assets. Finally, since the ACS was part of a defensive Early Warning System in the midst of the Cold War era, there were national security concerns that might not be as salient in today's context—except, perhaps, for Russia as the former Soviet Union privatizes telephone systems.

CONDUCT OF THE SALE OF ACS

The crafting of the features that characterized the sale of ACS into the private sector was thorough and imaginative. Also, the basic approach to privatization that was chosen is very different from what countries have recently done in selling off their state-owned utilities. In the latter case the simple idea was to auction the assets to the highest bidder with the goal of returning as much money to the treasury as possible. In the Alaska case the complex idea was to make the auction focus on facilities improvements and reduced rate schedules while requiring every bidder to pay the same "upset price" equal to the fair value of the existing property. The genius of this

compete in the establishment of the Department of Defense budget with proposals to expend funds for military purposes . . ." Hearings on S.2444, *op. cit.*, p. 29.

approach was that the transaction would fit generally within the public utility regulatory setting, would not result in Alaskan ratepayers being burdened forever with "too high" rates for recovery of the premium paid by a winning bidder, would achieve the two public interest goals of the sale—better service with lower rates, and would assure that the U.S. government got a reasonable (though not top dollar) price for the assets.

Getting agreement among the parties for such an innovative approach in the legislation was no small feat. Neither the U.S. Treasury, the Congress, the Department of Defense, the FCC, on the federal side nor the State of Alaska, the local governments, the business interests, the Alaska Public Utilities Commission, on the state side had identical interests. And for their part the telecommunications companies that were expected to be the bidders would much preferred to have simply bid on the basis of price and not be faced with devising binding bids regarding investment upgrades and lowered tariffs. Successful orchestration of this fundamental framework and other important provisions of the transaction can largely be attributed to the close collaboration of the U.S. Air Force Office of Installations and Logistics and the aforementioned Presidential Committee for Development Planning in Alaska.

It was fortunate and somewhat unusual that S.2444, "A bill to authorize the disposal of the government-owned long-lines communication facilities in the State of Alaska," went to the Preparedness Investigating Subcommittee of the Senate Committee on Armed Services for consideration. Senator Bob Bartlett of Alaska, the prime congressional force behind the bill, had only recently left that Subcommittee and

had a special relationship with its chairman, Senator John Stennis. Other senators comprising the subcommittee, several of whom participated in the May 1966 hearing were Henry Jackson, Robert Byrd, Stuart Symington, Margaret Chase Smith, Strom Thurmond, Leverett Saltonstall, and Howard Cannon. This was a powerful group indeed, and favorable consideration by this subcommittee would bode well for S.2444 in full committee in the Senate, and in the Congress itself. It was probably also helpful that the two Alaska senators, the congressman from Alaska, and the Governor were all of the same party and used to working well together.

The concerns of the participants in the hearing on S.2444 were proper and well focused. They can be grouped into those primarily dealing with the U.S. governmental interest and those dealing with Alaska's special interest. They are instructive to identify briefly here.

The Senate wanted assurances from the Air Force witnesses that the sale price of ACS would fairly recover the government's investment,¹² that military preparedness would not be endangered,¹³ that the Air Force would not be faced with higher prices when it "bought back" communications services from the purchases of ACS,¹⁴ and that civilian and military employees at ACS would be reasonably accommodated in the transition.¹⁵ The Air Force was also asked what the costs of conducting the disposal

¹²*ibid.*, p. 10.

¹³*ibid.*, p. 36.

¹⁴*ibid.*, pp. 36, 47, and 103.

¹⁵*ibid.*, p. 34.

might be, and the answer was "not more than \$500,000."¹⁶ From the Federal Communications Commission witness Senator Stennis extracted somewhat reluctant promises that the FCC would review the interstate rates proposed by the winning bidder (rates which would be frozen for the first year under the Air Force sale provisions), would recommend a downward adjustment if found to be too high, and would work closely with the Alaska PUC as to the issuance of regulatory documents like a Certificate of Public Convenience and Necessity.¹⁷

Senior Air Force witnesses responded to the Committee's concerns affirmatively. They pointed out that they would in effect control the prices that the military as well as civilian users of the system would pay by the requirements in the bidding procedure itself. Fair cost recovery would result from the Air Force determining the upset price, based on a consultant's evaluation of the value of the ACS facilities involved in the sale (and preparatory to it). They also testified that the national security could well be enhanced by privatization of ACS since system improvements would be an integral part of the outcome. As to providing for ACS employees (many of whom were based in Seattle, not Alaska, at ACS headquarters), the Air Force said it would try to get the purchaser in advance to signal the potential for continued employment of ACS personnel. Employees in the civil service system would also have an opportunity to

¹⁶*Ibid.*, p. 35.

¹⁷*Ibid.*, pp. 39-42.

accept another position with the federal government, and uniformed ACS employees would be reassigned.

With respect to Alaska, the senators wanted to make sure that the outcome of privatization was really going to be beneficial to the State generally and that the rural population would be served and served better. They also wanted to know that the Governor of Alaska was explicitly for it.¹⁸

The question of "service to the bush," as it is often described, is a perennial issue in Alaska with its great distances, sparsely populated rural areas, and often high cost operations. As such, it still today commands a good deal of the regulatory agenda on communications at the Alaska PUC and sometimes at the FCC.¹⁹ The testimony of the chairman of the President's Committee for Development Planning in Alaska outlined the problem and a solution in saying,

The volume of service required by (these remote) communities is inadequate to permit the establishment of a separate commercial network.

The Department of Defense believes that it can, on some reasonable economic basis, continue to provide (village service into the toll centers over the military lines) without prejudicing its military system.²⁰

¹⁸*ibid.*, p. 58-59, 62. It also, in the course of adroit questioning, got the Governor's representative to move from his initial remark that ". . . we neither favor nor oppose (the bill) because we are not sure of the exact results yet" to concluding his testimony that with or without the Governor's suggested amendments ". . . I do not think we would oppose the bill as such."

¹⁹I have in mind here, for example, various Alaska Joint Board FCC discussions held intermittently from 1989 to 1993.

²⁰Hearings on S.2444, *op. cit.*, p. 50.

The "reasonable economic basis" that designers of the sale had in mind involved allocating costs in remote areas on a usage basis between national defense, defense standby and commercial carriage. The idea would be that charges to bush subscribers would be predicated only on the costs allocated residually to the commercial traffic.

The Committee accepted fully the economic development benefits ascribed to the sale both in terms of lower cost and higher quality service.

Historically, it has not been common for national legislatures—U.S. or elsewhere—to focus in any detail on the arcane field of public utility regulation. The legislative history of the privatization of the Alaska Communication System sketched above was, therefore, somewhat unusual. The hearing record read a bit like a public utility textbook with frequent reference to concepts of used and useful, universal service, the revenue requirement, fair and reasonable rates, cost allocation, common carriage, demand elasticities, rate base valuation, and Certificates of Public Convenience and Necessity. But it was just this thoroughness in understanding by the Committee that made the disposal action possible, and the bill became law on November 14, 1967.

ASPIRATIONS AND OUTCOMES

In this section we set forth expectations that were associated with the sale of the Alaska Communications System, and attempt to measure some of the outcomes. Our interest is both in the outcome of the sale of ACS and the degree to which expectations

were met and the broader results revealed by the post-sale history of communications in Alaska. Some outcomes can be directly linked to the sale, while others cannot be so directly attributed for various reasons.²¹

However, we try here to identify the changes in the industry that reflected compliance of RCA Alascom with initial expectations and stipulations, and to evaluate the performance of RCA Alascom and its successors as corporate players. (The advent of AT&T on the scene through its 1995 purchase of Alascom is so recent as to be beyond the scope of this review.)

A. Sale and Certification

As indicated previously, the innovative sale of the ACS system was to be based on a fixed price, plus guarantees of rate reductions and commitments to specified types of future investments, including consideration of satellite service.²² Seven bidders responded, and the sale was finally awarded to RCA Global Communications (Globcom). Key terms of the sale included the following.

1. A purchase price of \$28,431,132 (with adjustments to be made at the time of transfer);

²¹First, the observed outcomes reflect the interaction of the new RCA Alascom, the young and (at the time) inexperienced Alaska Public Utilities Commission (APUC), and a pro-active State of Alaska. Second, the period following the sale was marked by rapid technological change in telecommunications nationally and world-wide. Third, the state was to enter an unprecedented boom related to the construction of the TransAlaska Pipeline, development of Prudhoe Bay oil fields, and government spending of large and initially unanticipated revenues. Finally, the industry, both at the national and state level, was headed for major restructuring, reflecting both the introduction of significant competition within markets and a concomitant relaxing of regulation.

²²This discussion is drawn primarily from Bivens, 1982; Melody, 1978, and APUC Order No. 3, U-69-24.

2. A commitment to rate reductions, over the first three years of operation, estimated to be in excess of \$40 million;
3. Capital expenditures of about \$27.7 million within three years from the date of the transfer, including expansion of landline intercity facilities, direct distance dialing, acquisition of part-ownership in the COMSAT earth station in Talkeetna, Alaska, expansion of service to 142 remote communities (the "bush" program, and some other specified projects).

Shortly after the sale, RCA Alaska Communications (a subsidiary of RCA Globcom and referred to hereafter as RCA Alascom) was incorporated in the State of Alaska as the corporation applying for the Certificates of Convenience and Necessity to both the FCC and the APUC.

The certification process at the state level was not without its difficulties, and was indicative of the problems that a newcomer to Alaska telecommunications could expect to encounter. The experience also supports the point made earlier that the success of privatization is dependent not only on the form of the privatized firm, but also is tightly linked to the form and expertise of the regulatory bodies under which the firm operates. This observation cannot be overstated when it comes to privatization overseas. After a few countries "learned the hard way," legislation authorizing the privatization of state-owned utility enterprises now commonly includes the establishment of a regulatory regime as a key provision of the bill, often replete with

indication of the commission structure, size, authority, and responsibility. International financial agencies like the World Bank, AID, and IDB nearly insist on it.

In the Alaska instance, the APUC was itself a young body, with limited experience in the regulation of long line communications, but with a fair amount of experience in the regulation of local exchanges. It should be noted that RCA Alascom was entering a market in which a number of sizable local exchanges were well established with their own interests and agendas.

Turf battles over who would be allowed to offer which services erupted before RCA Alascom got to carry its first long distance call. Briefly told, RCA Alascom's application was sweepingly broad, and was viewed by existing firms as seriously restricting services that the local exchanges could provide in the future, including direct distance dialing, bush service, service to areas not presently served by local exchanges, and numerous other items. Objections were also raised on the lack of specific toll sharing agreements and other operating agreements. What was really at issue was the future shape of the Alaska telecommunications market.

The commission recognized the complexity of the issues raised, and also realized that resolution of these issues could take years. The commission's imaginative solution was to exclude from consideration what it identified as "peripheral" issues, with which it would deal in future proceedings, and focus only on the provision

of "public long-lines and toll telephone services and telegraphic services."²³ RCA Alascom received its certificate in August, 1970. By January of 1971, RCA Alaska Communications was operating Alaska's long distance system, a little over three years since the Congress authorized the sale.

The next several years would prove to be difficult, but generally financially rewarding years for RCA Alascom. Dealing with the regulatory environment and local exchange competitors was a part of daily life, and not something that RCA Alascom was especially prepared for or comfortable with. By 1979 RCA Alascom was ready to pass the reins to a new owner, Pacific Power and Light (and its subsequent subsidiary, Pacific Telecom, Inc.). Pacific Power and Light was a well diversified public utilities firm, and upon assuming ownership, what had been RCA Alascom became, simply, Alascom, Inc.²⁴

B. Results and Evidence

There are no absolute standards by which to judge the performance of RCA Alascom in the aftermath of the sale. However, a good starting point is to focus on the terms of the sale—major modernization investments, reduction in the price of service, and expanded service to rural Alaska. In general, we look mostly at the early years, up

²³APUC U-69-24, Order No. 3, p.11.

²⁴Shortly thereafter, competition within many markets in the telecommunications industry was a fact at the national level, and in 1982 General Communications, Inc. (GCI) began interstate commercial operations in direct competition with Alascom. Then in 1991, GCI entered the intrastate market (General Communications, Inc., Form 10-K, December, 1993). As noted, in 1995 AT&T acquired the stock of Alascom, and Alascom is currently operating as AT&T-Alascom.

to the time that RCA Alascom is sold to Pacific Power and Light (June 1979).

1. Investment

The amount of investment envisioned as being warranted by market conditions at the time of the sale was implicitly estimated by RCA Alascom to be about \$28 million over the first three years of operation. Events quickly rendered these estimates as grossly inadequate. Demands related to construction of the TransAlaska Pipeline System, development of Prudhoe Bay, rapid expansion of the overall economy, needs of the "bush," and rapid technological change all contributed to the need for greatly accelerated investment.

Recall that the whole system at the time of sale by the Air Force was valued at about \$28 million. Table 1 summarizes net plant, and gross and net revenues for RCA Alascom and its successor owners from 1971 through 1992. First, it is clear that the levels of investment stipulated in the sale were rapidly met and exceeded. Further, gross revenues, which had been growing at about ten percent a year in the 1960's (Air Force-owned ACS revenues) grew at an annual rate of about 13.6 percent through the 1970's under privatization. Net revenues grew at an even more dramatic rate of 38.3 percent per year. It is worth noting that these growth rates are in constant dollars. Growth during the 1980's continued to be substantial, but less dramatic.²⁵

²⁵In nominal dollars the growth rate per year of gross revenue was over 23 percent, and net revenue grew at about 45 percent. From this it can be seen that the testimony of the chairman of the presidential committee for developing Alaska as well as the Air Force itself with respect to the likely commercial feasibility of the privatized system was amply borne out.

**TABLE 1
RCA ALASCOM NET PLANT AND EQUIPMENT, GROSS REVENUES, AND NET REVENUES (1971-1995)**

MILLIONS OF CONSTANT DOLLARS (1982 - 1984 = 100)					MILLIONS OF CURRENT DOLLARS*				
YEAR	NET PLANT	CHANGE IN NET PLANT	GROSS REVENUE	NET REVENUE	YEAR	NET PLANT	CHANGE IN NET PLANT	GROSS REVENUE	NET REVENUE
Reporting Year					Reporting Year				
1971	92.78		66.50	1.23	1971	39.25		28.13	0.52
1972	106.99	14.21	79.57	2.64	1972	46.43	7.19	34.53	1.15
1973	151.53	44.54	90.51	4.82	1973	68.64	22.21	41.00	2.18
1974	212.31	60.79	117.45	13.93	1974	106.58	37.94	58.96	6.99
1975	326.01	113.70	150.70	24.29	1975	186.15	79.57	86.05	13.87
1976	290.36	-35.65	177.68	22.45	1976	178.57	-7.58	109.27	13.80
1977	390.79	100.43	183.64	28.21	1977	256.36	77.79	120.47	18.51
1978	386.85	-3.94	190.14	25.60	1978	271.57	15.21	133.48	17.97
1979	376.78	-10.07	194.33	25.51	1979	292.38	20.81	150.80	19.80
1980	355.96	-20.82	193.99	28.10	1980	304.35	11.96	165.86	24.03
1981	360.97	5.01	216.81	39.57	1981	333.53	29.19	200.33	36.56
	(shift to calendar year)					(shift to calendar year)			
1983	458.20	97.23	279.09	58.68	1983	454.53	121.00	276.86	58.21
1984	409.82	-48.37	264.16	43.36	1984	423.35	-31.18	272.87	44.80
1985	354.31	-55.51	274.97	38.65	1985	374.86	-48.48	290.91	40.90
1986	323.65	-30.66	264.91	39.34	1986	348.90	-25.97	285.57	42.41
1987	304.09	-19.56	259.73	39.24	1987	329.03	-19.87	281.03	42.46
1988	270.26	-33.83	261.32	40.88	1988	293.50	-35.53	283.79	44.39
1989	261.29	-8.97	253.47	53.70	1989	291.86	-1.64	283.13	59.98
1990	316.12	54.83	226.02	40.72	1990	374.91	83.05	268.06	48.29
1991	313.92	-2.19	277.59	4.06	1991	389.27	14.35	344.21	5.03
1992	222.45	-91.48	261.77	30.80	1992	285.17	-104.09	335.59	39.48
1993	202.88	7.59	243.93	29.12	1993	268.20	10.03	322.47	38.49
1994**	130.87	-67.79	246.38	38.24	1994	176.68	-91.52	332.61	51.63
1995	234.63	107.43	239.69	29.16	1995	325.90	149.22	332.93	40.51

Source and Notes:

- Current dollar data are taken from the annual reports of the APUC. There is no 1982 report due to the transition from reporting year to calendar year reporting. Data have been deflated using the Anchorage Consumer Price Index. In 1979 RCA Alascom, Inc. is purchased by Pacific Power and Light, Inc. The name is changed to Alascom, Inc.

** Associated with sale to AT&T

The average change in net plant for the 1971 through 1979 period was about \$28.1 million per year. Investments were wide ranging and included major reorganization to the switching networks, stored programming technology for Direct Distance Dialing (DDD) (for Anchorage in 1972 and elsewhere by 1975), heavy investment in emerging satellite technology, and much more. By the end of the first decade of operation, over \$400 million had been invested.²⁶

2. Employment

Another consequence of the sale of the ACS system was an expected increase in private sector employment in the communications field. Table 2 shows the growth of Alaska employment and wage and salary income of workers in the telephone and telegraph industry (primarily SIC 481). From a base of 150 workers in 1970 just before RCA entered Alaska, employment grew to almost 2200 by 1995, with an annual payroll of just over 109 million dollars. Some perspective on these figures is given by looking at SIC 481 employment as a percentage of total employment. The figure has grown from 0.16 percent to about 0.80 percent currently, and seems to have become a relatively stable share of total employment.²⁷

3. Tax Base

In addition to expansion of the private sector employment base, expansion of the tax base was also envisioned as one of the positive outcomes of the sale, particularly in

²⁶Shaginaw, 1982.

²⁷It should be noted that not all of this employment is private sector employment, in that several of the local exchange utilities (including the Anchorage Telephone Utility) are municipally owned.

TABLE 2
EMPLOYMENT AND WAGES IN ALASKA TELEPHONE AND TELEGRAPH
(SIC 481)

Year	Average Monthly Employment	Annual Wage & Sal (Mil \$)	Average Monthly Wage (in \$)	State Total Average Monthly Employment	SIC 481 As Per Cent of State Total
1970	150	1.673	930	92,465	0.162
1972	793	10.687	1123	104,243	0.760
1975	1644	33.592	1702	161,315	1.019
1980	2027	66.371	2729	170,018	1.192
1985	1895	81.420	3580	228,076	0.831
1990	1832	81.750	3719	236,227	0.776
1991	1961	93.039	3954	241,024	0.814
1992	2059	94.912	3841	245,845	0.838
1993	2104	100.881	3996	251,216	0.838
1994	2148	106.417	4129	256,829	0.836
1995	2183	109.299	4176	259,771	0.840
1996	2240	111.664	4155	261,613	0.856

Source: Alaska Department of Labor, *Statistical Quarterly*, selected years.

a new state with a narrow tax base. Data for the early years were not obtainable, but in 1977 RCA Alascom incurred just under four million dollars in tax liabilities: Federal Corporate Tax, \$10.21 million; Alaska Corporate Tax, \$2.32 million; Alaska Gross Receipts Tax, \$0.5 million; and property taxes within Alaska, \$0.86 million. Thus, after several years of operation, RCA Alascom was contributing something over three million

dollars of tax revenue annually to Alaska state and local governments (and over three times that to the federal government). By 1995, however, the successor company paid \$21.38 million in federal taxes, \$6.02 million in state and local income taxes, and \$2.40 million in property taxes--a grand total of \$29.8 million in taxes.²⁸

4. Rural Service

The next element of the sale package to be examined is the bush program. Approximately 142 bush communities were to either receive new or upgraded service. In most cases this was to consist of a single phone, available for public use at some central location. Connection was to be by VHF links to existing exchanges or toll centers.²⁹ By 1974 the APUC decided to open a docket (APUC, U-74-87) to inquire into the progress of the bush program. The findings were mixed, but it was clear that the program was well behind schedule, both in terms of scope and quality of service.

With the bush program lagging, RCA Alascom actively explored the feasibility of using satellites to increase bush service. Coincidentally, the State of Alaska, increasingly dissatisfied with the rate of bush progress, began to aggressively pursue independent development of bush service through the use of satellites and earth station links. The state appropriated several million dollars for the acquisition of earth stations and at one point was actually seeking certification to provide service. A

²⁸*Annual Report* of Alascom to the Alaska Public Utilities Commission, various years.

²⁹During the 1971-1975 period Alascom installed Improved Marine Telephone System (IMTS) units to about fifty communities but, reportedly, the system was less than adequate. In some instances, as many as five or six villages would share a single channel. Call completion rates as low as ten to fifteen percent were common. Batra, 1982.

compromise of sorts was finally reached (in 1975), in which the state purchased the equipment and Alascom installed and operated about 100 small earth stations.³⁰ It is interesting to note that this model of government ownership and private operation of the facilities is currently being repeated in several countries around the world as an alternative to either full public or full private ownership of utilities.

The resulting "system" was still far from satisfactory. Performance during the 1976 through 1978 period revealed a number of problems, including unacceptably high failure rates for system components and power supplies as well as slow repair times. Bush system reliability, measured in March of 1978, was about 67.3 percent. This level of quality of service was found to be significantly below that obtained by the Telesat of Canada system which provides communications service to remote areas of northern Canada under conditions similar to the Alaska bush.³¹

Despite these problems the connection of local areas via satellite, and subsequent expansion of the system concurrent with the development of more sophisticated technologies, were positive factors in the rapid expansion of local exchanges in rural Alaska.³² For example, United Utilities, Inc., begun in 1978, had expanded to operating twenty exchanges with a customer base of over 2000, by 1982.³³ Prior to 1980, about 45 rural (defined roughly as not connected to the highway

³⁰Shaginaw, *op. cit.*

³¹Arthur D. Little, Inc., 1979, pp. 140-142.

³²Other, perhaps equally or more important factors, include restructuring of local, intrastate, and interstate rate systems.

³³Batra, *op. cit.*

system) villages were connected to RCA Alascom. Between 1980 and 1989, in excess of 135 communities were added.³⁴

5. Prices

Perhaps the most important element of the sale package is the price for service. A general interstate rate reduction was to go into effect at the time that RCA Alascom assumed operation. The initial rate reduction averaged twenty-five percent; and was expected to "save" consumers about forty million dollars over the first three years of operation. Even with these cuts, Alaska rates were well above national rates, but a look at the Alascom interstate rate history shows an unbroken downward trend in tariff prices.

It was asserted in congressional testimony by the Federal Field Committee and others supporting the sale of the ACS system that demand for Alaska telecommunications services was both price and income elastic. We attempted some preliminary investigation of this hypothesis using RCA Alascom revenues as a measure of quantity, with prices and per capita disposable income as the independent variables. Linear and log linear regressions suggest that the volume of calls is price elastic (i.e., greater than one) and that the income elasticity is positive and greater than one.³⁵

³⁴*Proceedings of The Chugach Conference: Discussing The Future of Communications in Alaska* (August 18-19, 1989).

³⁵These results are based on only eleven observations, so care must be taken with the quantitative conclusions.

Concern was also expressed in pre-sale testimony that reductions in the price of long distance service would occur at the expense of local exchange rates. A cursory review suggests that in the larger systems (e.g., Anchorage, Fairbanks) rates, measured in real terms, actually did fall. Rates in some of the smaller systems appear to have increased in some cases and declined in others. The massive expansion of bush service makes generalizations over time very difficult. However, total costs to consumers overall have decreased in real terms (see Table 3). For those who make significant use of long distance calls, the decrease has been substantial.³⁶

Perhaps the most dramatic changes observed are in the rapid decline of the price of interstate long distance calls. Table 3 compares the cost of a 1969 \$10.00 Alascom call to subsequent rates. The rates for the first minute and for additional minutes for selected city pairs are shown in Table 4. Based on these rates (direct distance dialed calls, daytime rate) a three minute call from Anchorage to Washington, D.C., would cost \$0.87. In the mid 1960s (1966) the comparable call (station to station) would have cost \$7.50.³⁷ Juneau to Seattle was \$3.50 and Nome to Seattle was \$5.50. These same calls would cost \$0.78 today. If the 1966 call was measured in 1996 dollars, the price of the Anchorage-Washington, D.C. call would be \$29.30. Said

³⁶The fact that during the period observed (roughly 1971-1990) significant changes in the structure of local rates were taking place makes for some caution in imputing causality. These included changes in the distribution of local and long distance charges, and ownership of the customer's telephone equipment, for example.

³⁷In closing the hearings on the sale of the Alaska communication system that afternoon in May 1966 Senator John Stennis had quipped, "We hope this matter will all be wrapped up. I want to put a telephone call through before too long to Alaska, and I don't want to have to pay \$12.50 or \$15.00." Hearings on S.2444, *op. cit.*, p. 105.

TABLE 3

ALASCOM RATE REDUCTION HISTORY

Date	RATE COMPARED TO \$10 CALL IN 1969
January 10, 1971	\$ 7.50
March 26, 1976	\$ 5.59
July 1, 1977	\$ 3.91
January 1, 1979	\$ 3.52
May 25, 1984	\$ 3.31
June 1, 1985	\$3.12
June 1, 1986	\$ 2.67
January 1, 1987	\$ 2.37
January 1, 1987	\$ 2.11
July 1, 1987	\$ 2.02
January 1, 1988	\$ 1.89
December 1, 1988	\$ 1.82
April 1, 1989	\$ 1.70
July 1, 1989	\$ 1.69
January 1, 1990	\$ 1.59
July 1, 1991	\$ 1.56

Source: Pacific Telecom, Inc., submission to APUC July 1991

TABLE 4

**CURRENT DIRECT DISTANCE DIALING RATES BETWEEN
SELECTED CITIES 1ST MINUTE AND EACH ADDITIONAL MINUTE**

CITY		Barrow	Juneau	Nome	Seattle	Wash. D.C.	Miami
Anchorage	1st	0.588	0.588	0.588	0.26	0.29	0.29
	Ad	0.38	0.38	0.38	0.26	0.29	0.29
Barrow	1st						0.29
	Ad						0.29
Juneau	1st	0.588		0.588	0.26	0.29	
	Ad	0.38		0.38	0.26	0.29	
Nome	1st				0.26	0.29	
	Ad				0.26	0.29	

Source: Phone Quote of Rates, February 16, 1995, from GCI, Inc.

another way, a one dollar call in 1966 would cost just under three cents (\$0.0297) today, when adjusted for the effects of inflation.

Calling plan rates reduce the price even further. Currently, GCI offers a rate of \$.18 per minute to residential customers that is good for all calls in Alaska or elsewhere in the U.S. The rate also includes a 10 percent "cash back" refund every six months, providing an effective rate of about \$0.162 per minute.

6. Service Quality and Performance

In 1971, the completion rate for toll calls through the primary Alaska toll centers averaged 38 percent. By 1976 the completion rates were as follows: Anchorage (47%);

Fairbanks (42%); Juneau (69%); and Ketchikan (66%).³⁸ By way of comparison, a standard of 95%-99% would be used by most telecommunications systems. Current data on this measure of service quality are difficult to come by, but indications are that they are converging on the national standard.

Toll separations were another matter of concern. In the mid 1960s toll revenues to local exchanges nationally, as a percentage of total revenues, averaged about 35 percent. Local exchange revenues were 65 percent. The City of Anchorage was receiving just under 8 percent of its total revenue from long distance toll revenues. By 1976 the balance had shifted somewhat. Nationally, the toll revenue fraction had increased to about 52.5 percent. Anchorage was at 35.4 percent, while Fairbanks and Ketchikan were about 44 percent. Juneau was at 52 percent. Thus, while Alaska was converging towards national averages, it still tended to lag substantially.

Comparisons of U.S. and Alaska phones per capita, prior to the sale, indicated that Alaska was grossly underserved, with telephones per 100 persons at about one-half the national average. Table 5 shows the percentage of Alaska households with phones by rural, urban, and total households, for 1960, 1970, 1980, and 1990. As indicated in the table, expansion of bush service was slow to respond following the sale. While modest gains are made between the 1970 and 1980 census, the real surge occurs after 1980. It is also worth noting that even communities of 1000 to 2500 in

³⁸Melody, *op. cit.* p. 55. Performance problems also abounded in other standard measures of service quality, e.g., operator response time, equipment blockage and failure, and trunking and switching operations, though the overall trend was toward improvement.

TABLE 5

PERCENT OF ALASKA HOUSEHOLDS WITH PHONES

YEAR	ALASKA	URBAN	RURAL	POP 1-2.5K
1960	60.0%	74.2%	47.8%	NA
1970	73.4%	84.8%	61.1%	NA
1980	83.3%	82.0%	65.3%	83.0%
1990	91.7%	95.2%	83.4%	92.3%

Source: Alaska Census of Housing: 1960-1990.

Note: In 1960 and 1970 the percentage measures "phone available," whereas 1980 and 1990 measures phone in unit.

population are on a par with the state average. Only in the smaller villages and communities does it appear that significant potential for expansion remains.

Furthermore, for the 1960 and 1970 Censuses, the measure of phone service is availability (roughly, "a phone nearby") versus a phone in the dwelling unit for later census years. Thus the figures tend to understate the growth of service availability, and certainly understate the growth in the quality of service.

C. The Telephone Company and the Institutional Setting

It is clear from the foregoing that significant growth in the communications industry occurred during the decade of the 1970s, and that RCA Alascom was a significant factor in that growth. RCA Alascom did meet the initial stipulations of the sale, though there was strong sentiment that there was much room for improvement.

We review here some of the perceptions and relations of the telephone company in the institutional setting in Alaska.

First, in a major study of telecommunications in Alaska completed a decade after privatization, the following assessment was offered:

Business use has increased significantly with the booming economic activity associated with the pipeline development. However, personal use has played a much reduced role in Alaskan communications because of reduced availability, inferior service quality and high charges. Most Alaskans apparently still treat communications as something that is only used for a particular purpose. For most Alaskans it is not the casual instrument of instant connection that is used without thought as to cost and significance as it is throughout the lower 48 states.³⁹

Second, the APUC-RCA Alascom relationship was often strained, and by 1978 the commission had contracted for a major external performance audit of RCA Alascom. Undertaking of the audit was indicative of substantial dissatisfaction with the performance of RCA Alascom, and some of the main findings are reviewed below.⁴⁰ They can be summarized in three main groups.

³⁹Melody, et al., *op. cit.* p. 55.

⁴⁰Before the audit was completed, however, RCA Alascom was sold to Pacific Power and Light (1979), and the audit findings were rendered moot for purposes of the Commission (APUC, U-78-4, Order No. 43).

The first addressed the relationship between RCA Alascom and its parent corporation RCA, Inc. The parent corporation had little experience in the operation of a regulated public utility and did not provide RCA Alascom with any clear sense of direction, goals, or objectives relative to relationships between the parent and subsidiary. Moreover, the subsidiary appeared to suffer from a lack of autonomy, particularly with respect to investment decisions.

A second area of difficulty was the relationships between RCA Alascom and other major players in the development of Alaska telecommunications policy, including the Alaska Legislature, the Office of the Governor, consumer interest groups, and the APUC. These groups were often at odds with each other, and there was no meaningful comprehensive state policy to provide direction for the development of telecommunications.

The third problem area was tied directly to the management of RCA Alascom. The study recognized that substantial progress had been made in solving many of the problems identified, but concluded that major changes were still necessary. A number of factors were highlighted. These included a failure to recognize the concept of "public servant" implicit in the award of the Certificate of Public Convenience and Necessity, the absence of long-run strategic planning focused on meeting acceptable levels and quality of service, an inability to provide regulatory bodies with data normally expected of regulated public utilities, inadequate long-run planning and budgeting,

many instances of staffing with inexperienced or less than fully qualified personnel, and high employee turnover rates.

These, and other problems, resulted in an highly unfavorable public perception of the company as reported by A.D. Little and may have underlaid the decision to sell. However, the sale of RCA Alascom to Pacific Power and Light was not a "magic wand". Several years after the sale, the Alaska Consumer Advocacy Program, in a 1985 report entitled "Telecommunications Policy in Alaska" (Alaska Consumer Advocacy Program, 1985) was highly critical of the overall telecommunications system.

Alaska's telecommunications system is in disarray. — Consumers are paying telephone rates under a system that was designed fourteen years ago by the federal government, and has not been reviewed since then. Utility officials and regulators are ignorant of where costs are being incurred in the phone network, and where, if any, subsidies are flowing within the state. (Page 1.)

While there is an obvious "consumer complaint voice" in these comments, the same general issues (especially rate design and toll separations) have been a focus of ongoing concern. Also, these remarks focus as much on the regulatory milieu as they do on an individual company, again underscoring the need for overall policy guidance.⁴¹

⁴¹Perhaps the principal point to be made is that, with respect to privatization, the regulatory framework must be adaptable and able to accommodate the concerns of parties at several levels.

Looking back, there was legitimate room for complaint regarding performance. At the same time, there is no question but that the original goals of Congress in authorizing the privatization of the system were met. Very significant increases in the scope and quality of the provision of service occurred, and the crucial matter of the high cost of telephone service to consumers was attended to when calling prices declined dramatically.

SUMMARY AND CONCLUSIONS

Thirty years ago the disposal of the Alaska Communications System was initiated and can be viewed as one of the early experiments in privatization in the utility sector. Our review and analysis has explored both the successes and problems associated with this experiment, the extent to which public policy objectives were met, and the similarities and dissimilarities of the Alaska case with the current world wide interest in privatization.

The fact is that most, if not all, of the basic goals of the framers of the sale were met. In many cases the goals were substantially exceeded. In addition to meeting the basic stipulations of the sale, the privatization resulted in a significant increase in private sector employment, development of needed infrastructure, a modest expansion of the tax base, and a substantial contribution to the quality of life in Alaska. Consumers benefitted from an expansion of telecommunications services, both in terms of scope and kind, and in significant reductions in the overall cost of communications.

From this perspective, the sale must be viewed as an unqualified public policy success.

When viewed from the more focused perspective of how well a regulated public utility firm performed in the aftermath of privatization, the record is a bit more mixed. A number of problems relating to the adequacy, quality, and reliability of service were experienced. The primary source of these difficulties was the ownership structure and management of RCA Alascom, but the rapid growth of demand, uncertain regulatory environment, and state intervention in the industry were contributing factors as well. Of course, utility performances in other states are not without some similar blemishes.

Finally, what implications can be drawn with respect to current privatization efforts around the world? *First*, privatization does not guarantee economic efficiency in production. RCA Alascom was a more efficient supplier of public communications services than its governmental predecessor, but there remained a great deal of room for improvement. Perhaps AT&T will be still more efficient, and competition may make it more so.

Second, privatization will likely result in a firm (or firms) that are more responsive to public demand. RCA Alascom was much more responsive to the growth in aggregate demand and the demand for new services than one could have expected from the government-owned system. (Recall that one of the justifications for the sale was lack of responsiveness on the part of the U.S. Air Force through its ownership of ACS to changing public needs.)

Third, privatization that simply is the transfer of monopoly power from public ownership to private ownership requires the existence of strong regulatory oversight to ensure production efficiency, service quality and pricing fairness. The Alaska experience suggests that this can be a challenging task for a regulatory body—especially a new one. However, over time the emergence of competition tends to lessen the detailed regulatory burden while at the same time the regulatory commission gains experience and stature. This maturing experience is being played out in other countries that have privatized state-owned enterprises, e.g., the U.K., Chile, and Argentina, but not without false starts, turmoil, and considerable friction.

Fourth, there may be an advantage from the public policy point of view to not auction off state-owned utility assets "to the highest bidder." The privatization of ACS was imaginatively done on the basis of bidding based on reduced rates and improved service rather than garnering the highest price for the government's assets. While the latter approach helps the treasury of a country, it may saddle future ratepayers with inordinately high prices to compensate the winning bidder for its high bid. This can be a real drag on growth and development and facilities modernization. Privatization in foreign countries has typically not followed the Alaska model in this regard as governments have striven to get top dollar for the assets, but the approach is worthy of consideration if a longer term view is taken.

Finally, the overall public policy sphere within which both production and regulation occur can have a significant impact on performance of the privatized

industry, for good or ill. In the case of Alaska the lack of a coherent, comprehensive telecommunications policy for Alaska in the immediate post-privatization period was repeatedly found to be one of the major problems in the orderly development of the industry. Improvement in the policy environment there has been accompanied by improvement in industry performance. It may well be that planning and privatization are not really the opposites they have long been held to be. For the latter to “work,” the former would seem to be required.