

# Monday Memo

*“Without a statutory requirement, an engineer on the FCC is unlikely.”*

**O**n Oct. 3, 1991, Congressman Don Ritter introduced a bill to require that at least one member of the FCC be an engineer. A critical question is why, after 58 years, the Communications Act needs to be amended to place a second statutory limitation on who the president can appoint to the FCC.

When Congress created the FCC in 1934, it gave that agency the mandate to regulate the radio frequency spectrum to make available “a rapid, efficient, nationwide and worldwide wire and radio communication service.” In the 58 years that have passed since the creation of the FCC, the technical sophistication and complexity of radio spectrum regulatory issues have increased tremendously. Yet, of the 64 past and present FCC commissioners, only eight have been engineers. The last FCC commissioner to have an engineering background was Charles D. Ferris, who served as chairman from 1977 to 1981.

Precedent for “allocating” commissioner slots exists. The Communications Act has always placed a limit on the number of commissioners who could be from the same political party. Congressman Ritter’s bill, H.R. 3501, or the Federal Commission Engineering Sciences Qualification Act of 1991, would simply add a second requirement to Section 4b of the Communications Act that at least one commissioner be skilled in the engineering sciences at the time of his or her appointment. H.R. 3501 is intentionally liberal in its definition of “skilled in the engineering sciences.” A premise of H.R. 3501 is that a non-technical commissioner with an engineering assistant is not the same as a commissioner with his or her own technical background.

Why the need to make this a statutory requirement? Because political reality has demonstrated that, without a statutory requirement, an engineer on the commission is unlikely to happen. With the exception of Chairman Ferris, all engineers were appointed to the commission prior to 1960: Tunis A.M. Craven, 1937; Ewell K. Jett, 1944; Edward M. Webster, 1947; George E. Sterling, 1947; Eugene H. Merrill, 1952; Tunis A.M. Craven, 1956 (re-appointment), and John S. Cross, 1958.

A second reason why a statutory requirement for an engineer is needed can be seen by examining the backgrounds of the professional assistants to the current FCC commissioners. Although the Communications Act gives

each FCC commissioner the right to appoint three professional assistants, one or more of whom could be engineers, only Commissioner Quello has seen fit to do so. But even if all of the commissioners had engineering assistants, a non-technical commissioner may never fully comprehend technical complexities and tradeoffs. Of course, a similar argument might be made that an engineering commissioner might never fully comprehend the legal, economic and, yes, political complexities and tradeoffs of issues that come before the commission. It is for that reason that H.R. 3501 would require that only *one* commissioner be an engineer.

A statutory requirement for an engineer on the commission is fundamentally different from more focused possible statutory requirements for, say, a designated broadcaster, cable operator, common-carrier operator or land mobile operator. A requirement for an engineering commissioner reaches across all those disciplines. An engineer slot on the FCC is also fundamentally different from the *de facto* slots for a minority commissioner and for a female commissioner. Race and gender have no basic relationship to the mandate of the FCC, which was created essentially as a technical regulatory

agency. In contrast, a statutory requirement for an engineer goes to the very foundation of the FCC’s mandate.

The criterion for “skilled in the engineering sciences” proposed by H.R. 3501 is intentionally broad. A nominee would be considered qualified if he or she holds a four-year or higher degree in any engineering discipline from an Accreditation Board of Engineering Technology-accredited institution; or if the nominee has attained “Senior” or “Fellow” status from a nationally recognized engineering society or if the nominee is registered as a professional engineer in any discipline in any state. The goal is to have at least one FCC commissioner with a background in the engineering sciences. That background need not be in broadcasting, cable television, radio or even electrical engineering for the purpose of H.R. 3501 to be accomplished. What is important is that at least one FCC commissioner has the fundamental background in mathematics, physics and engineering economics that goes with the attainment of an engineering degree, the achievement of peer-earned Senior or Fellow status or professional registration. ■



*A commentary by Dane E. Ericksen, Hammett & Edison Inc., Washington*

# H. R. 3501

To amend the Federal Communications Act of 1934 to require that at least one member of the Federal Communications Commission be skilled in the engineering sciences.

## IN THE HOUSE OF REPRESENTATIVES

OCTOBER 3, 1991

Mr. RITTER introduced the following bill, which was referred to the Committee on Energy and Commerce

## A BILL

To amend the Federal Communications Act of 1934 to require that at least one member of the Federal Communications Commission be skilled in the engineering sciences.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

### 3 SECTION 1. SHORT TITLE.

4 This Act may be cited as the "Federal Communica-  
5 tions Commission Engineering Sciences Qualification Act  
6 of 1991".

### 7 SEC. 2. FINDINGS.

8 Congress finds that—

2

1 (1) the Federal Communications Commission  
2 (FCC) was created in 1934 as a technical regulatory  
3 agency, mandated to regulate the radio frequency  
4 spectrum so as to make available a rapid, efficient,  
5 nationwide and worldwide wire and radio commu-  
6 nication service;

7 (2) in the 56 years since the creation of the  
8 FCC, the technical sophistication and complexity of  
9 radio spectrum regulatory issues has increased sig-  
10 nificantly. At the same time, of the 64 past and  
11 present FCC commissioners, only 8 have been engi-  
12 neers, or have had apparent training in the engi-  
13 neering sciences; and

14 (3) though the FCC commissioners may appoint  
15 professional assistants, few have engineering assist-  
16 ants, and such is not a suitable substitute for first-  
17 hand comprehension of technical complexities and  
18 technical policy alternatives.

### 19 SEC. 3. AMENDMENT.

20 Section 4(b) of the Communications Act of 1934 is  
21 amended by adding at the end the following new para-  
22 graph:

23 "(6) At least one Commissioner shall, by virtue of  
24 possessing at least a bachelor of science degree in any en-  
25 gineering discipline from an Accreditation Board for Engi-

3

1 neering and Technology-approved educational institution,  
2 or by virtue of holding senior or fellow status in a nation-  
3 ally recognized engineering society, or by virtue of reg-  
4 istration as a professional engineer, be skilled in the engi-  
5 neering sciences at the time of his or her appointment."

O



**Don Ritter (R-15-PA) 7th Term 60%**

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**Biography:** b. Oct. 21, 1940, New York, NY, Professor, Unitarian; m. Edith Duerksen; 2 children; Lehigh U., B.S.; M.I.T, M.S.; M.I.T., Sc.D.; home, Coopersburg.

**District:** 15th, Pop. 516,492; Maj. Cities, Bethlehem, Allentown; Offices, Bethlehem (215/866-0916), Allentown (215/439-8861), Easton (215/258-8383).

**Committees:** Energy and Commerce; Science, Space and Technology.

**Aides:** Adm., Patty Sheetz; Legis., Jean Perih; Exec. Asst., Carol Kresge; Press, John Mies.

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**State of Washington Representatives**

	Name	Party	District	Term
1	Chandler, Rod	R	8th	4th
2	Dicks, Norman D.	D	6th	8th
3	Foley, Thomas S.	D	5th	12th
4	McDermott, Jim	D	7th	2nd
5	Miller, John	R	1st	4th
6	Morrison, Sid	R	4th	6th
7	Swift, Al	D	2nd	7th
8	Unsoeld, Jolene	D	3rd	2nd