$\alpha|f(0)| + \beta(\text{sign } f(0))f(x) \neq \alpha|f(0)| + \beta|f(x)| = \langle |f|, \alpha\delta_o+\beta\delta_x\rangle =$ $\langle |f|, A'\delta_o\rangle$. This contradicts (2.9). We have shown that $\beta = 0$; i.e., $L = \alpha\delta_o$.

The converse can be shown by using Thm. 2.5 again. However, if $L = \alpha\delta_o$, then it is easy to see that A generates the semigroup $(T(t))_{t\geq 0}$ given by

$$(T(t)f)(x) = \begin{cases} f(x+t) & \text{if } x+t < 0 ; \\ e^{t\alpha} f(0) & \text{if } x+t \geq 0 . \end{cases}$$

So $(T(t))_{t\geq 0}$ is clearly a lattice semigroup.

□

3. SEMIFLOWS, FLOWS AND POSITIVE GROUPS

In this section we establish a relation between generators of lattice homomorphisms and derivations. On the space $C_o(\mathbb{R})$, for example, this will enable us, to give a detailed description of all generators of positive groups.

At first we consider a compact space K and denote by $C(K) = C(K,\mathbb{R})$ the space of all real valued continuous functions on K . The extension of the subsequent results to the complex spaceis obvious.

A lattice homomorphism T on $C(K)$ is an algebra homomorphism if and only if $T\,1 = 1$ (see B-I,Sec.3). We start by describing semigroups of algebra homomorphisms on $C(K)$.

<u>Definition</u> 3.1. A mapping $\phi : [0,\infty) \times K \to K$ is called <u>semiflow</u> if for each $t \geq 0$ the mapping ϕ_t given by $\phi_t(x) = \phi(t,x)$ is continuous and

(3.1) $\phi_s \circ \phi_t = \phi_{s+t}$ for all $s,t \geq 0$

(3.2) $\phi_o(x) = x$ $(x \in K)$.

A semiflow ϕ on K induces a family $(T(t))_{t\geq 0}$ of algebra homomorphisms on $C(K)$ by

(3.3) $T(t)f = f\circ\phi_t$.

Then clearly $T(t)T(s) = T(t+s)$ $(t,s\geq 0)$; i.e., $(T(t))_{t\geq 0}$ has the