Suppose $h[a] = 0$ in $H^{p,q}(E_r)$.

$\Rightarrow$ $a = dl + dx + y$ where

$$dl \in d(F^{p-r}K^{p+q-1}) \cap F^pK^{p+q}$$
$$dx \in d(F^{p-r+1}K^{p+q-1})$$
$$y \in F^{p+1}K^{p+q}.$$

$\Rightarrow$ Since $ddl = 0$, $[dl] = 0$ in B.

$da = dy \in F^{p+r+1}K^{p+q+1}$

$\Rightarrow$ $d(dx+y) \in F^{p+r+1}K^{p+q+1}$ and

$dx = a - dl - y \in F^pK^{p+q}$ $\Rightarrow$ $dx + y \in F^pK^{p+q}$, and

$dx + y \in A$. $\Rightarrow$ $[a] = 0$ in B.

$\Rightarrow$ h is one to one.

Clearly h is onto. $\Rightarrow$ h is isomorphic.

$\Rightarrow$
$$H^{p,q}(E_r) \cong E^{p,q}_{r+1} \cong \frac{\{a \in F^pK^{p+q};\ da \in F^{p+r+1}K^{p+q+1}\}}{\{d(F^{p-r}K^{p+q-1}) + F^{p+1}K^{p+q}\} \cap}$$

For r sufficiently large,

$$E^{p,q}_r = \frac{\{a \in F^pK^{p+q};\ da = 0\}}{dK^{p+q-1} + F^{p+1}K^{p+q}}$$
$$\cong \frac{F^pH^{p+q}(K^*)}{F^{p+1}H^{p+q}(K^*)}$$
$$= Gr^p H^{p+q}(K^*).$$

This completes the proof of the proposition. Q.E.D.

For r sufficiently large, $F^{p+r}K^* = \{0\}$ by the def.
$F^{p+r}K^{p+q+1} = \{0\}$, and $F^{p-r+1}K^* = K^*$, $F^{p-r+1}K^{p+q-1} =$