## Method grid for gaussian reduced grid

In psmile_gauss_get_neighbours, a stencil with 16 points is constructed for each point ic, in the global space (see table face). These faces correspond to the method grid. Taking 16 points allows to treat bicubic as well as bilinear interpolations. It is given from the initial table star(1:4) (see below).


Global $\mathbf{j}=\operatorname{star}(4)$


5 : ic = star point $\Leftrightarrow$ reference point found by the search
$\Leftrightarrow$ source lower left point

Faces (1:16) : global indices (still ok at $\mathbf{N}$ and S )


## Application : decomposition with entire bands of latitudes



If upper partition, need of the two upper bands of latitude to create the godd stencil If lower partition, need of the one lower band of latitude to create the godd stencil

## Application : decomposition with non entire bands of latitudes



If upper partition, need of 7 and 10 for 4 and ( 8 and 11) for 5 , need only 6 and 9 for point 3

If lower partition, need of the one lower band of latitude to create the godd stencil

