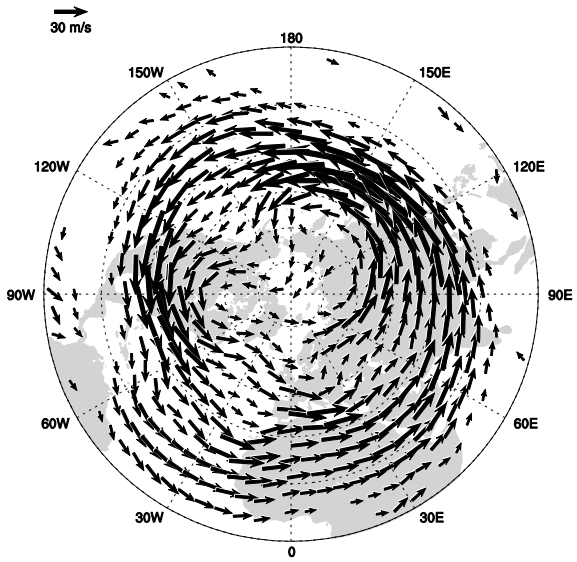
NCL 绘图示例（八）：风场矢量图




```
begin
   f = addfile("h300-197901-201412.nc","r")
   h = short2flt(f->hgt)    ;变量为 short 型，因此需利用函数 short2flt 将其转换为 loat 型

   ;读取 300hPa 第一时次高度场，利用函数 2geouv 计算地转风场
   uv = z2geouv(h(0,{300},:,:),h&lat,h&lon,1) ;1 表示经度循环
   u = uv(0,:,:)
   v = uv(1,:,:)
   copy_VarMeta(h(0,{300},:,:), u)
   copy_VarMeta(h(0,{300},:,:), v)

   wks = gsn_open_wks("eps","plot-vector")

   res                              = True                ; Plot options desired.
   res@gsnLeftString              = ""
   res@gsnRightString             = ""
   res@gsnPolar                    = "NH"

   ;箭头的形状
   res@vcGlyphStyle                = "FillArrow" ;    "CurlyVector" , "WindBarb"
   res@vcFillArrowWidthF               = 0.1
   res@vcFillArrowHeadXF               = 0.4
   res@vcFillArrowHeadYF               = 0.10
   res@vcFillArrowHeadInteriorXF = 0.25
   res@vcFillArrowEdgeThicknessF = 2        ; 箭头边缘粗细
```

```
  res@vcFillArrowEdgeColor      = "white"   ; 箭头边缘颜色
  res@vcFillArrowFillColor      = "black"   ; 箭头内部填充颜色

  res@vcMinMagnitudeF             = 10.0        ; 不绘制小 10 的箭头
  res@vcMinDistanceF              = 0.02        ; 箭头之间的最小距离,防止高纬度
地区绘制过多的箭头

  ;;参考箭头
  res@vcRefAnnoOn                   = True
  res@vcRefMagnitudeF               = 30          ; 标准长度箭头所表示的大小
  res@vcRefAnnoString2              = "30 m/s"
  res@vcRefLengthF                  = 0.04        ;标准长度箭头在图形中的长度
  res@vcRefAnnoBackgroundColor    = "white"   ;背景颜色
  res@vcRefAnnoPerimOn              = False       ;关闭边框
  res@vcRefAnnoFontHeightF          = 0.015       ;参考箭头标签字体大小
  res@vcRefAnnoString1On            = False       ;设定参考箭头上、
  res@vcRefAnnoString2On            = True        ;             下的字符
  res@vcRefAnnoOrthogonalPosF     = -1.1        ;垂直移动参考箭头的位置
  res@vcRefAnnoParallelPosF         = 0.1
  plot    = gsn_csm_vector_map_polar(wks,u,v,res)
end
```