KIC 006446130

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
006446130-01	OBS	No	1.384452	132.420930	27.5	15.956	8.1	12.9	0.84	5362	0.47	909.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006446130-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_MEAS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

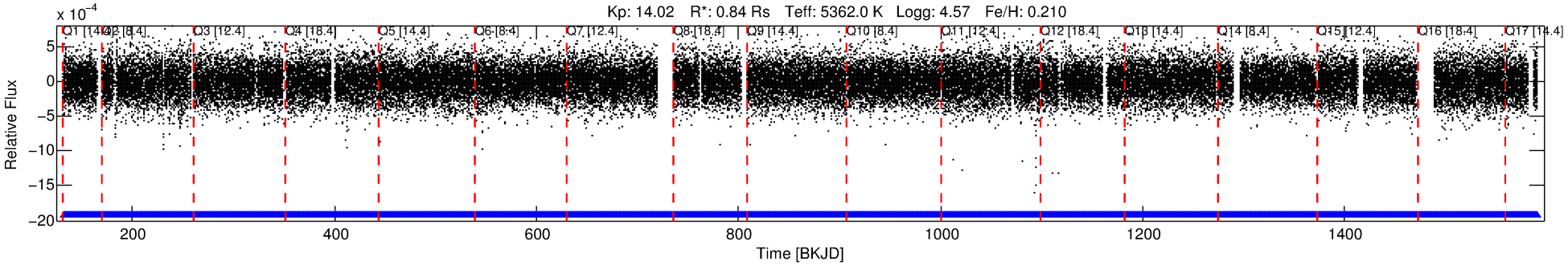
Ephemeris Match Information For 006446130-01

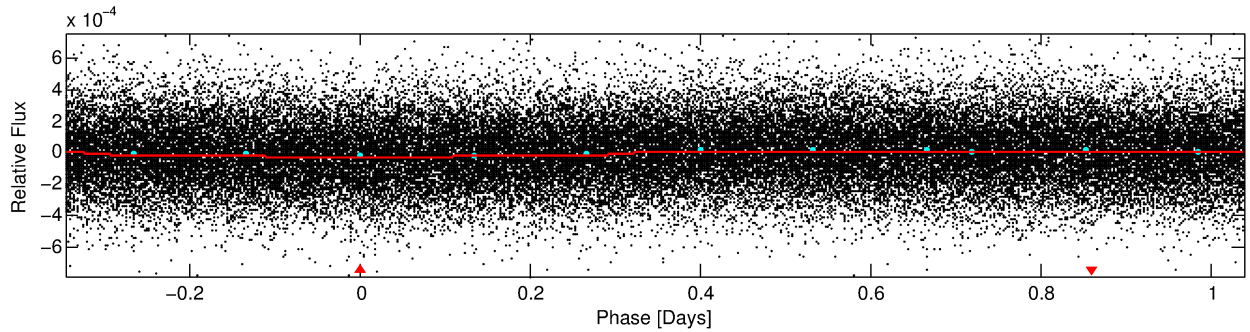
No Significant Match Found

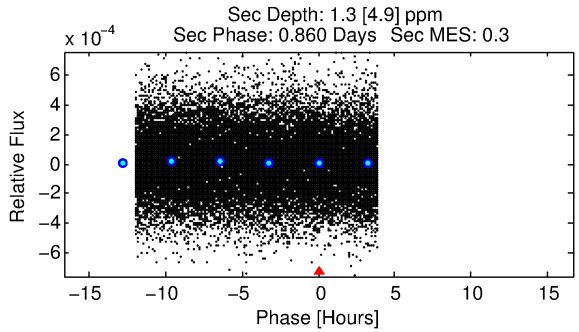
DV One-Page Summary

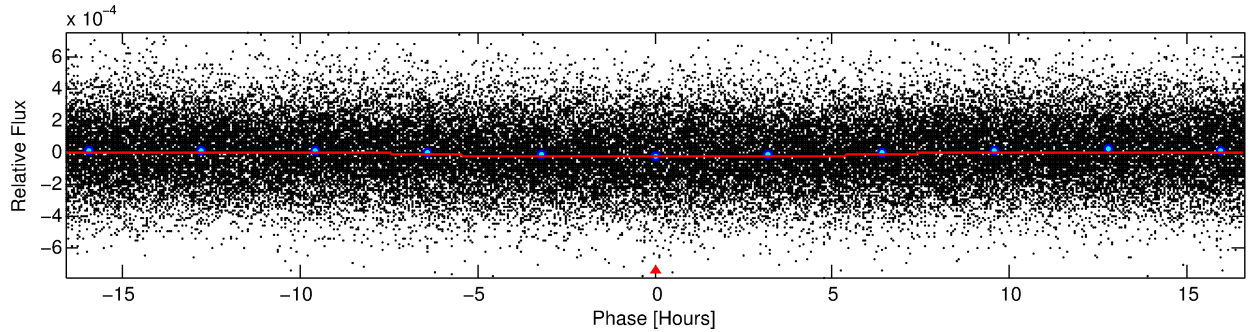
KIC: 6446130 Candidate: 1 of 1 Period: 1.384 d

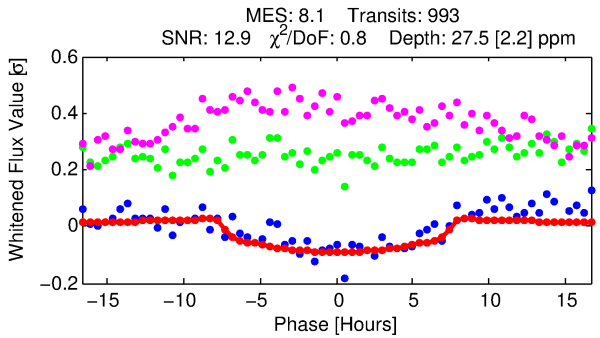
Kp: 14.02 R*: 0.84 Rs Teff: 5362.0 K Logg: 4.57 Fe/H: 0.210

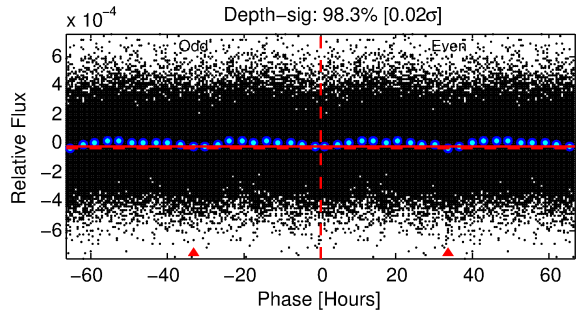












DV Fit Results:

Period = 1.38445 [0.00002] d
Epoch = 132.4209 [0.0105] BKJD
Rp/R* = 0.0051 [0.0012]
a/R* = 1.01 [0.01]
b = 0.68 [0.71]

Seff = 909.93 [158.54]
Teq = 1400 [61] K
Rp = 0.47 [0.12] Re
a = 0.0239 [0.0024] AU

Ag = 1.89 [7.19] [0.12σ]
Teffp = 2539 [2412] K [0.47σ]

DV Diagnostic Results:

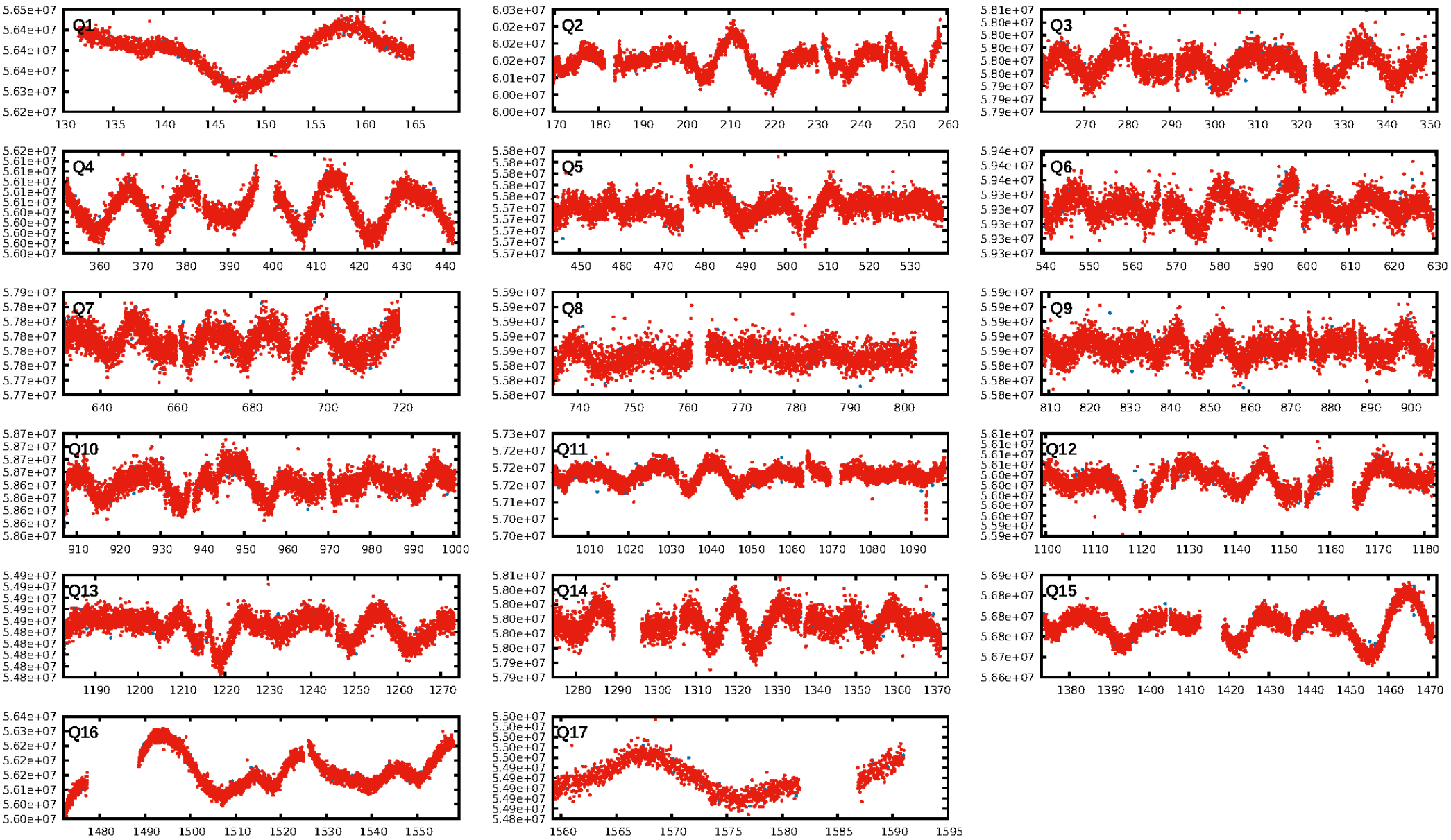
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [950/950]
GhostDiagnostic−chr: 1.335

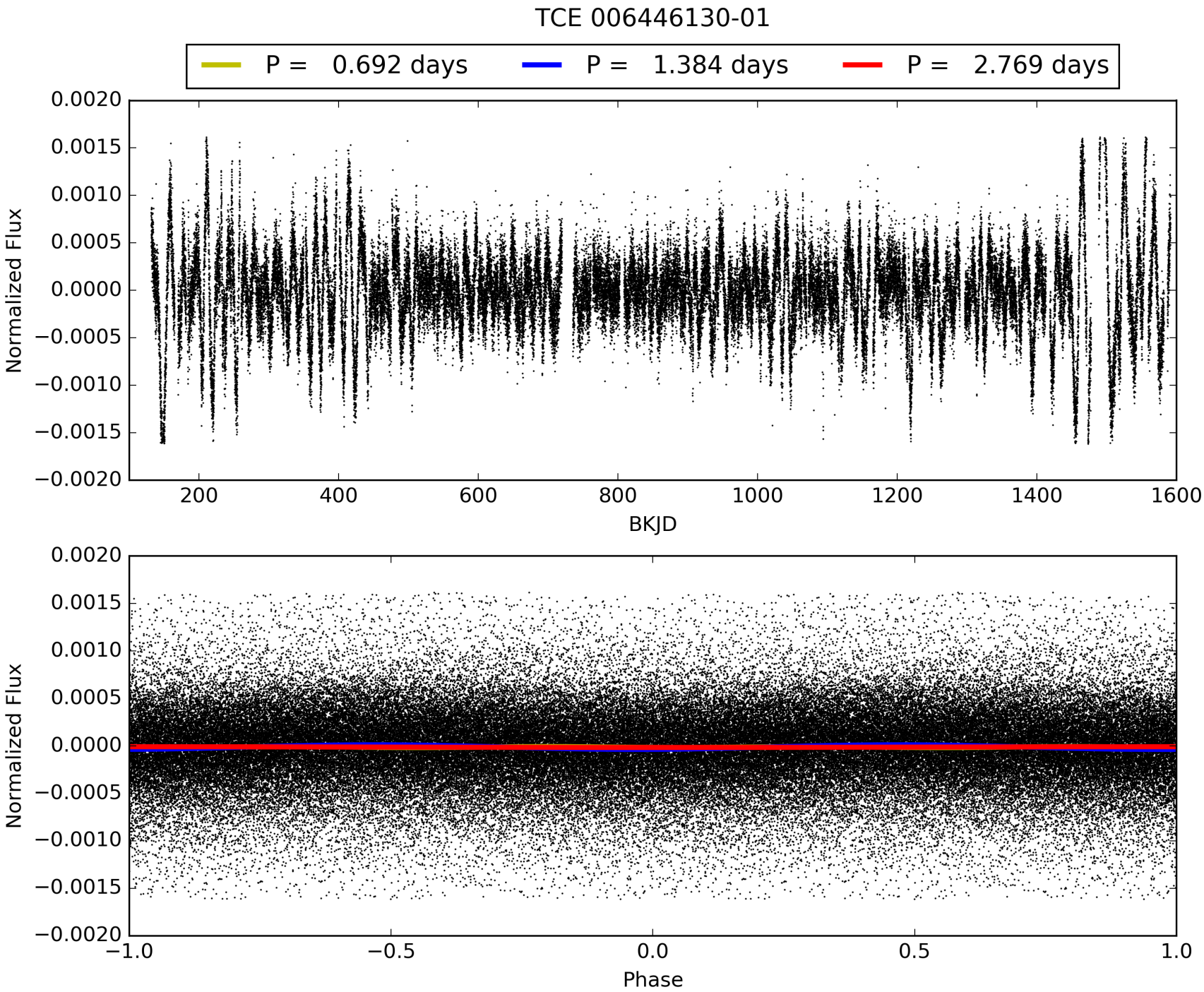
Centroid−sig: 3.9%
Centroid−so: 1.203 arcsec [1.83σ]
OotOffset−rm: N/A
KicOffset−rm: N/A
OotOffset−st: 0/0/0/0 [0]
KicOffset−st: 0/0/0/0 [0]
DiffImageQuality−fgm: N/A
DiffImageOverlap−fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30−Jan−2016 16:29:43 Z

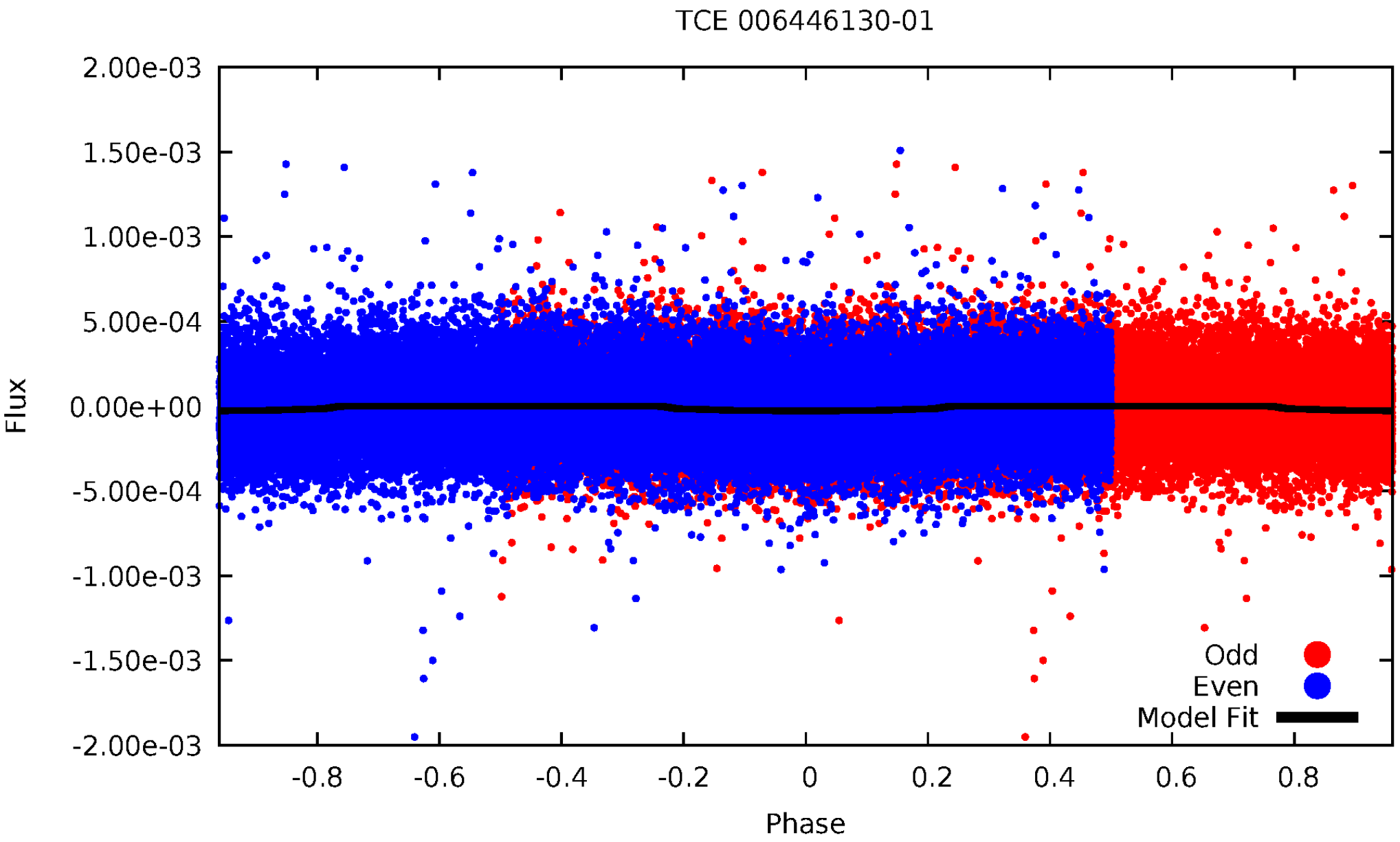
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006446130-01, PDC Light Curves

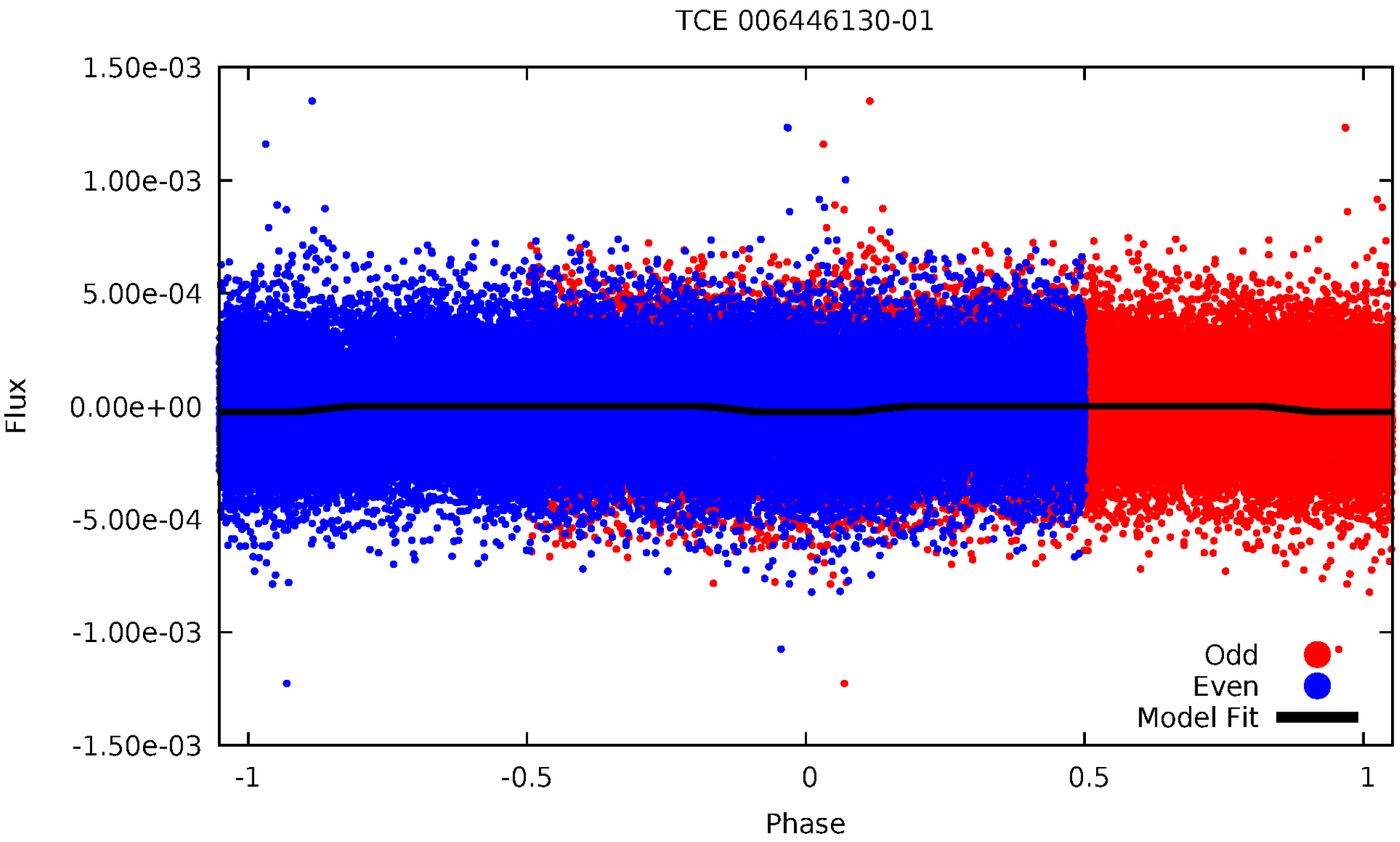



TCE 006446130-01
P = 0.692 days
P = 1.384 days
P = 2.769 days
Normalized Flux
BKJD
Normalized Flux
Phase

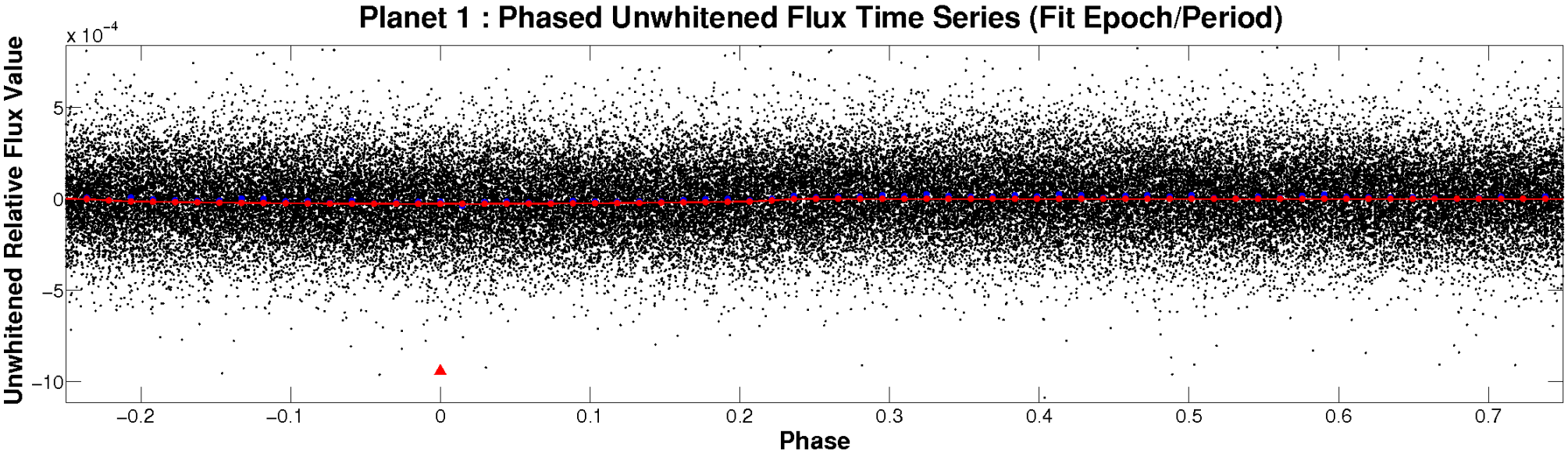
DV Odd/Even

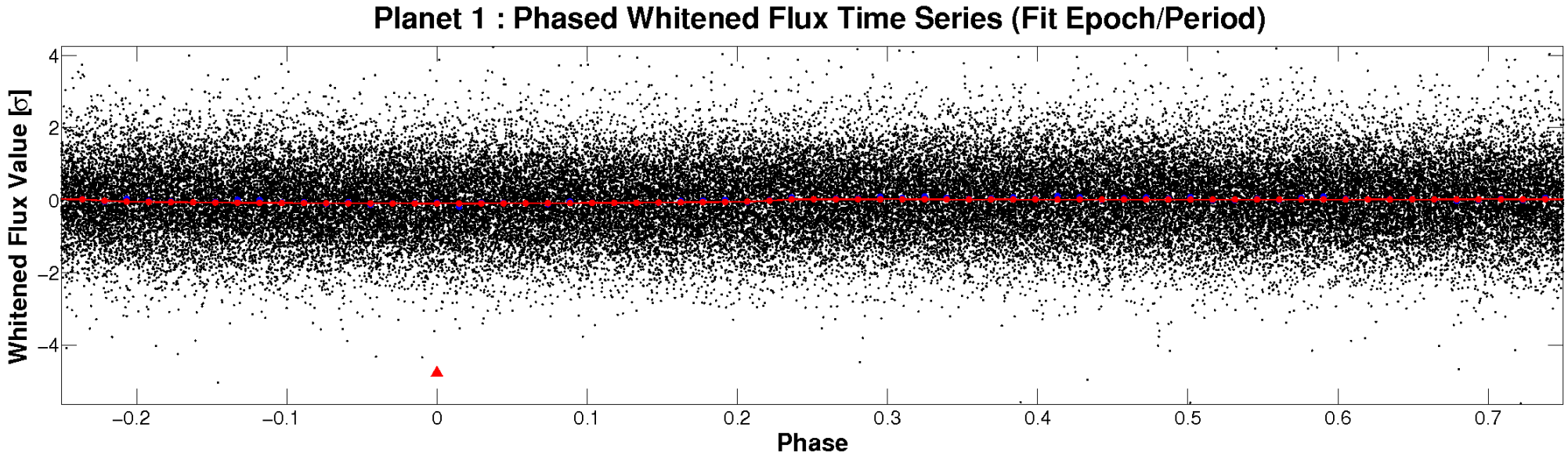

TCE 006446130-01
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.8
-0.6
-0.4
-0.2
0
0.2
0.4
0.6
0.8
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006446130-01
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
Flux
-1
-0.5
0
0.5
1
Phase
Odd
Even
Model Fit

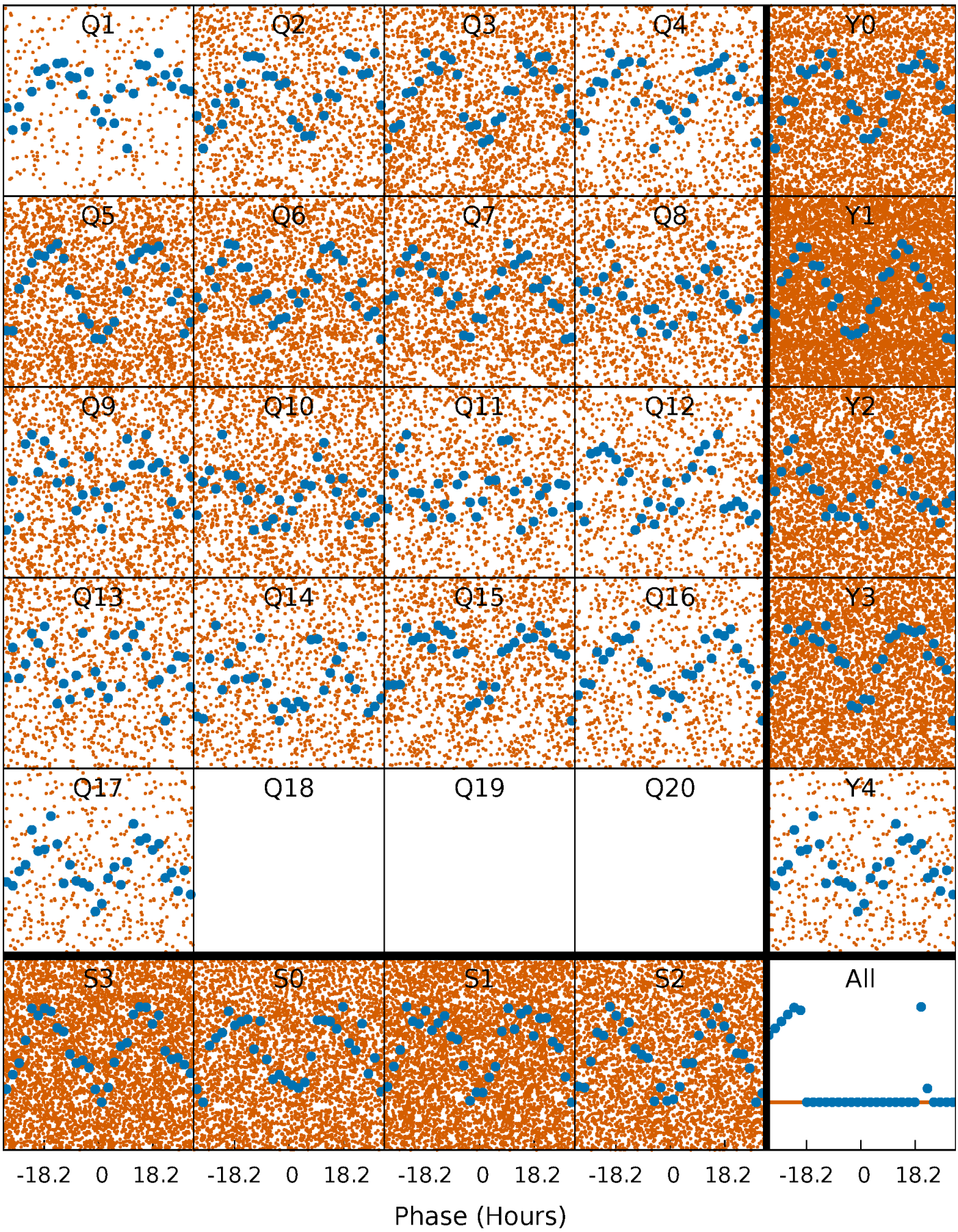
Non-Whitened Vs. Whitened Light Curve





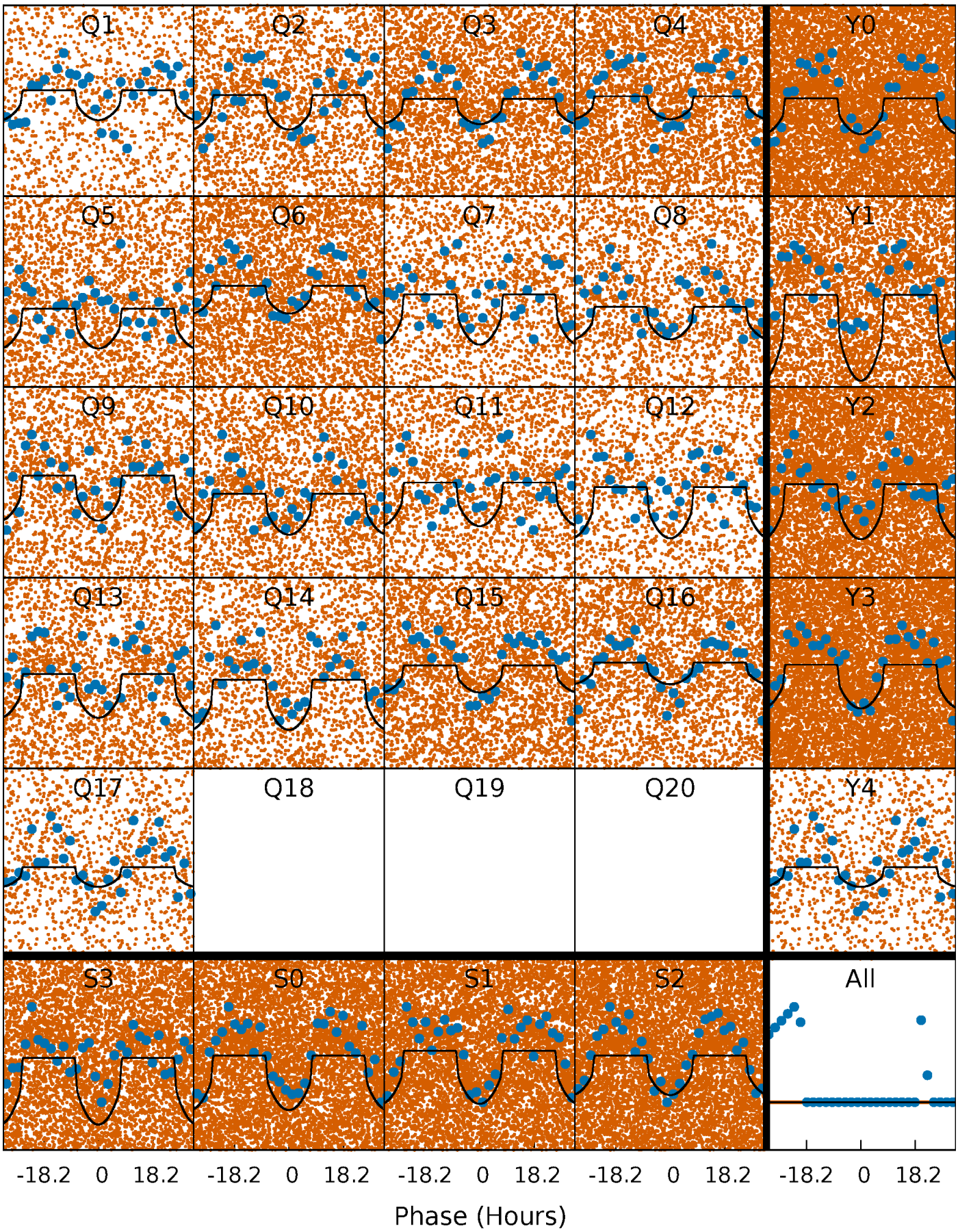
PDC Quarter-Phased Transit Curves

TCE 006446130-01 P= 1.384452 Days T_0=132.420930 (BKJD)



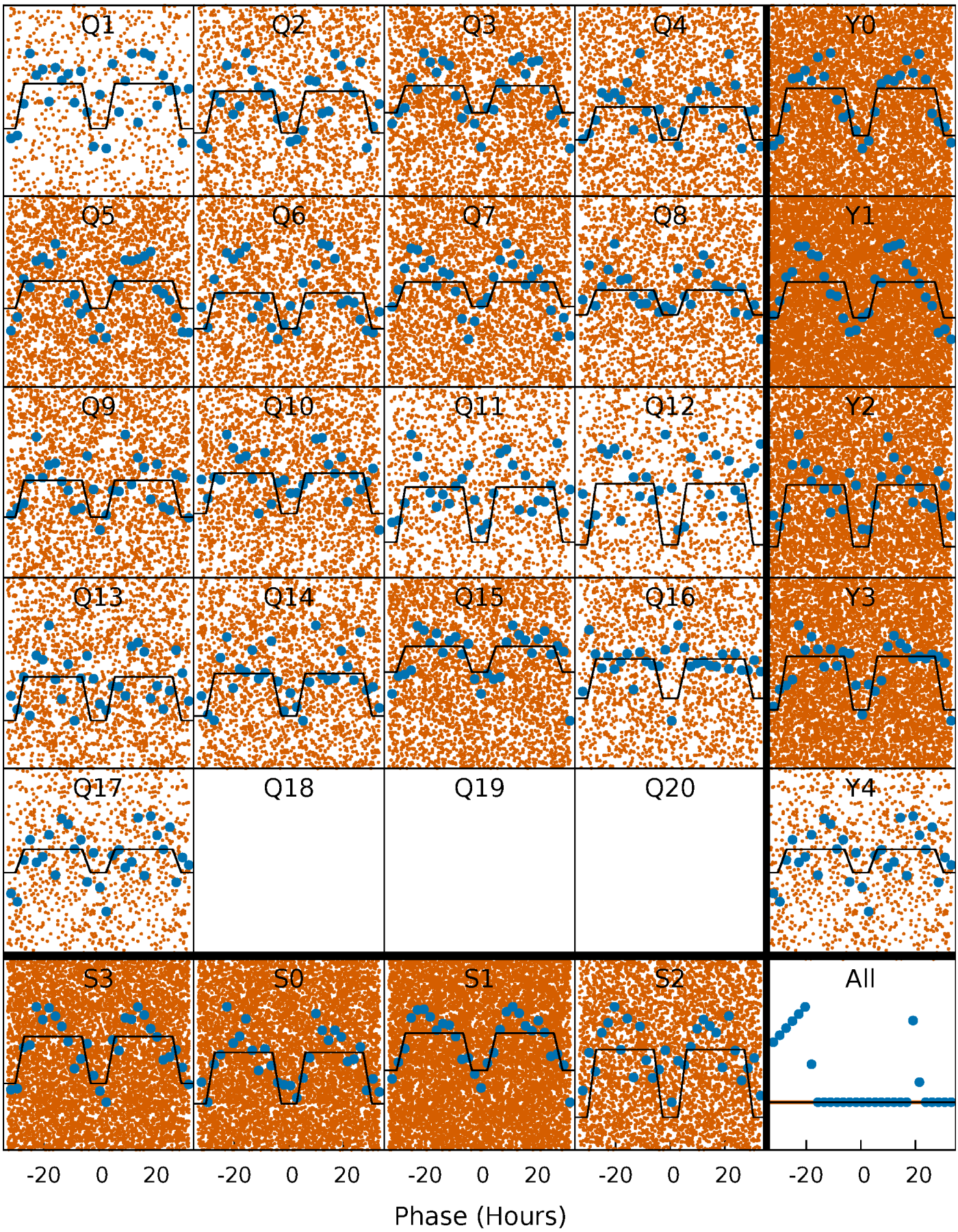
DV Quarter-Phased Transit Curves

TCE 006446130-01 P= 1.384452 Days T_0=132.420930 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

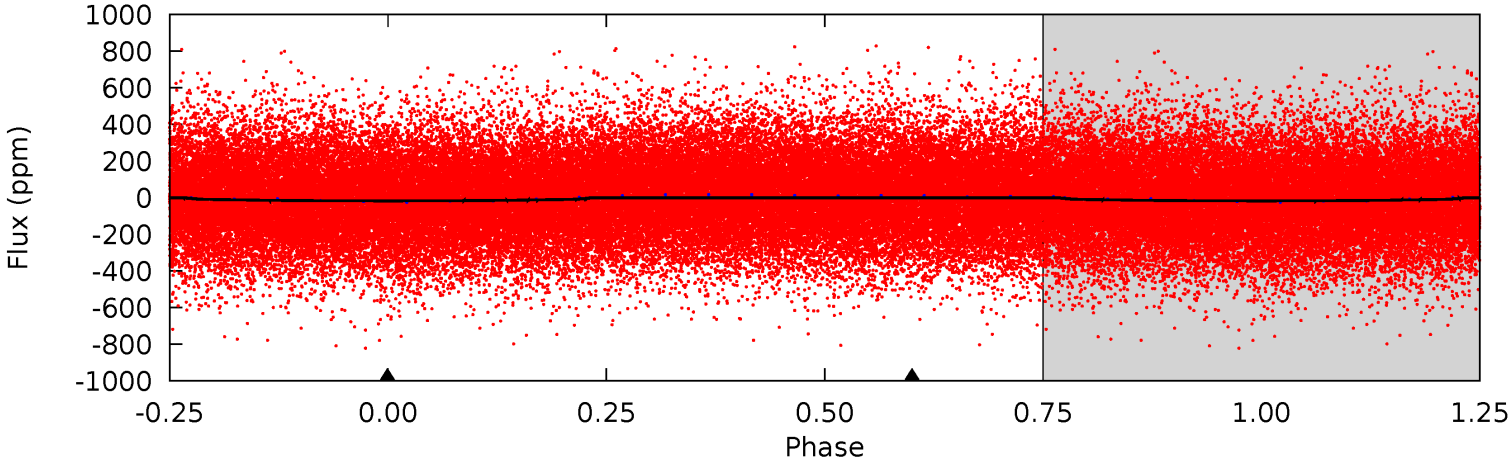
TCE 006446130-01 P= 1.384231 Days T_0=132.543007 (BKJD)

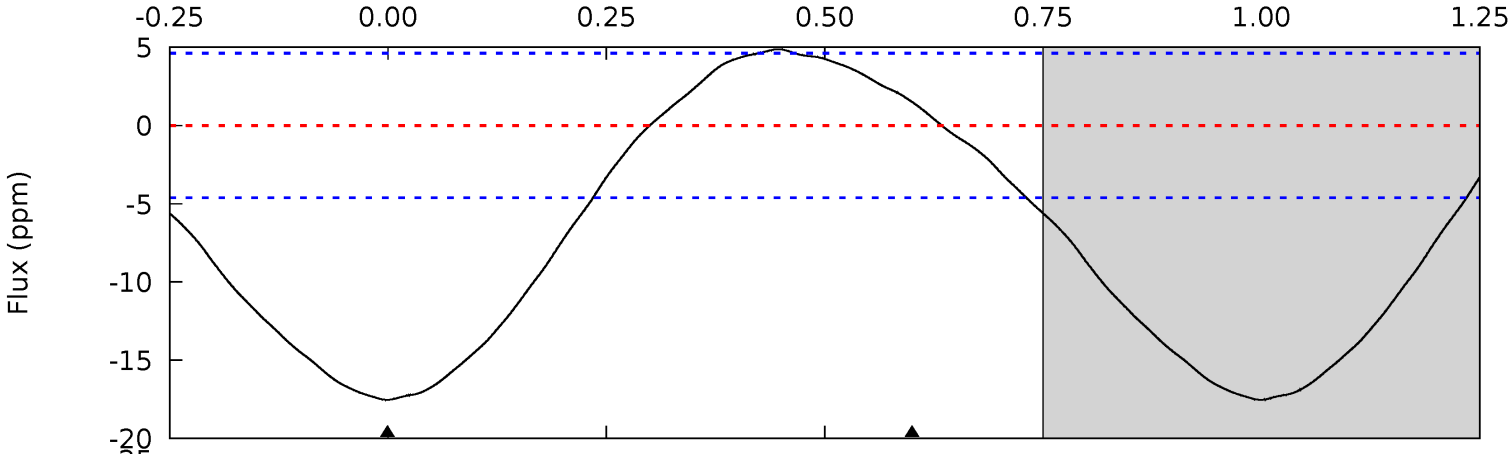


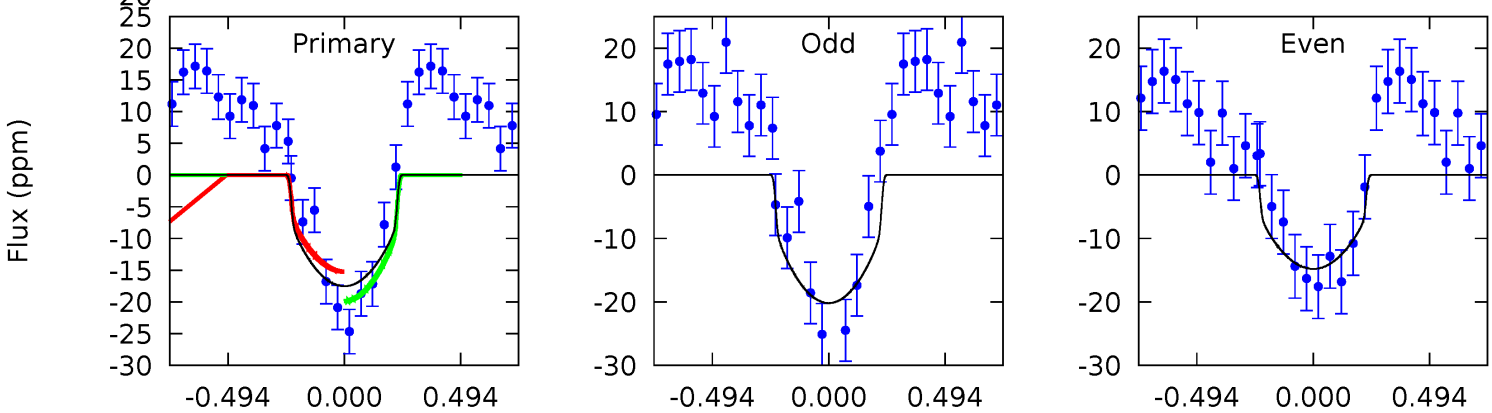
DV Model-Shift Uniqueness Test

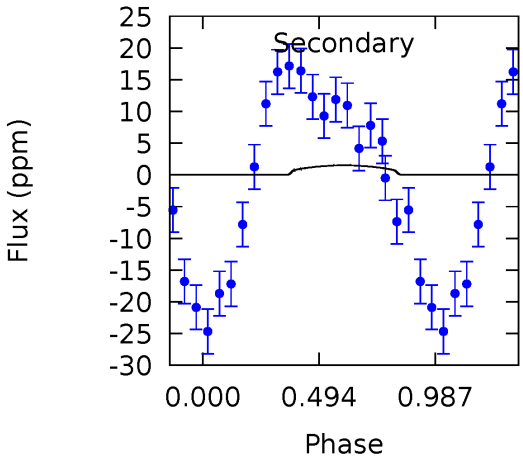
006446130-01, P = 1.384452 Days, E = 131.036478 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	-1.37	0	0	4.22	0.68	1.50	16.0	16.0	-1.37	-1.37	2.47	0.91	0.22	2.09





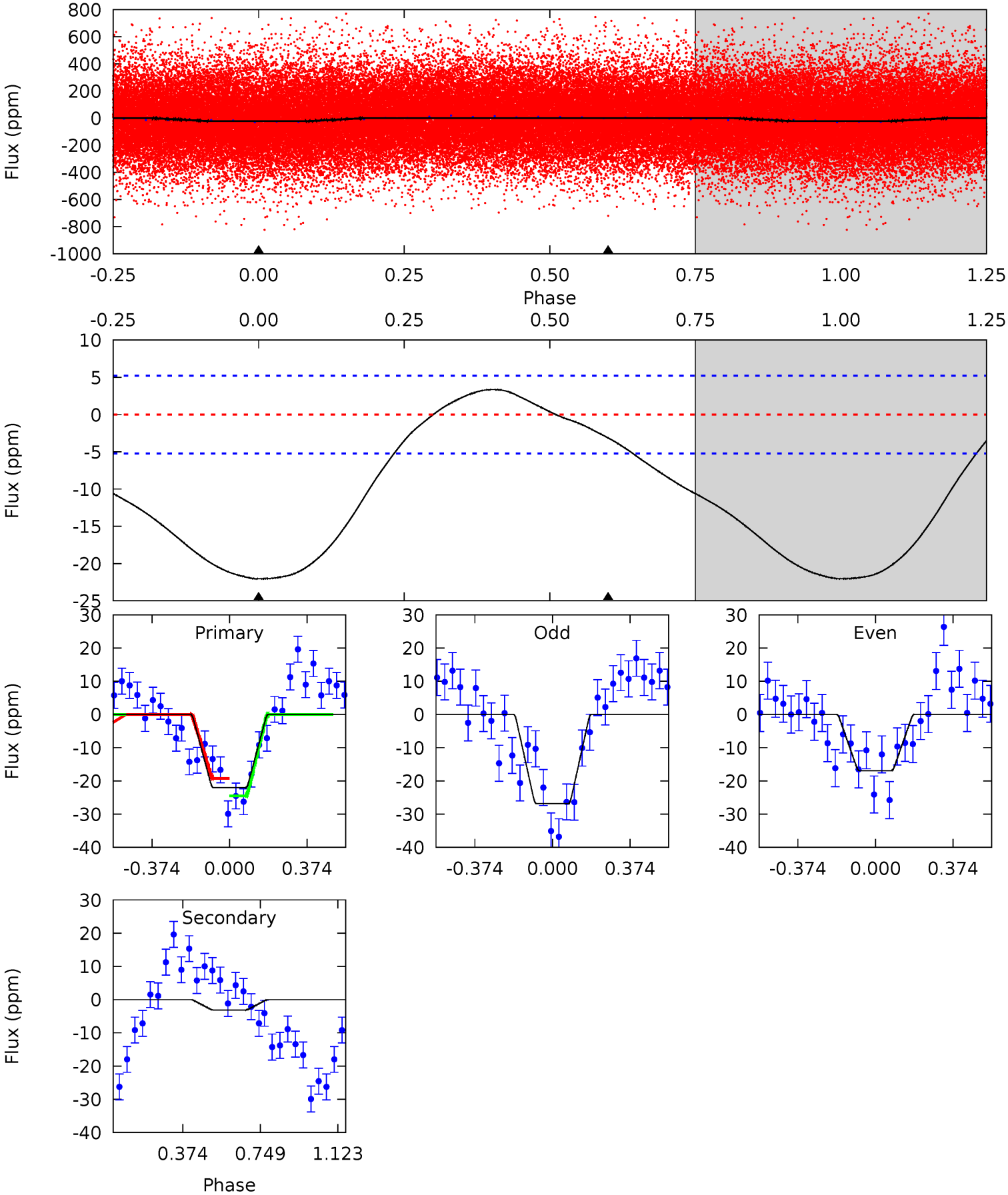




Alt Model-Shift Uniqueness Test

006446130-01, P = 1.384231 Days, E = 131.158776 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.1	2.57	0	0	4.28	0.89	1.40	18.1	18.1	2.57	2.57	4.08	0.91	0.13	2.09



Stellar Parameters For KIC 006446130

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	5362^{+72}_{-88}	$4.570^{+0.011}_{-0.094}$	$0.210^{+0.150}_{-0.150}$	$0.839^{+0.091}_{-0.024}$	$0.954^{+0.029}_{-0.058}$	$2.277^{+0.138}_{-0.644}$
	+1%/-2%	+0%/-2%	+71%/-71%	+11%/-3%	+3%/-6%	+6%/-28%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006446130-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	2±1	$0.48^{+0.11}_{-0.11}$	1981^{+55}_{-40}	-3258^{+449}_{-377}	$-1.979^{+1.475}_{-2.256}$
Alt.	-3±1	$0.47^{+0.11}_{-0.11}$	1981^{+52}_{-42}	3588^{+377}_{-416}	$4.517^{+3.443}_{-2.305}$

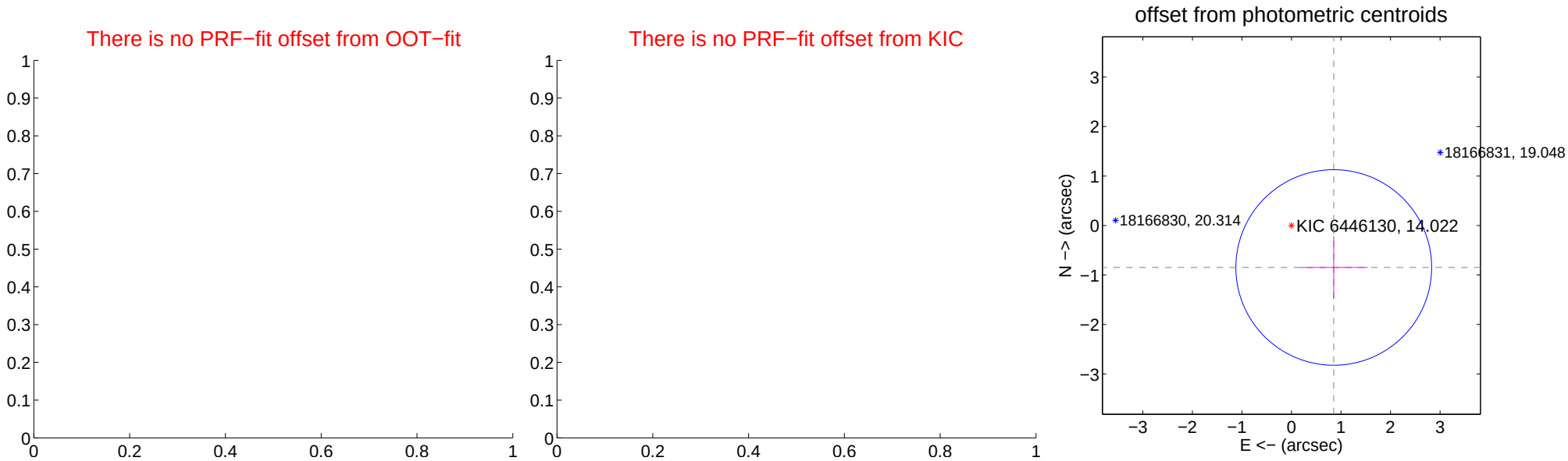
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

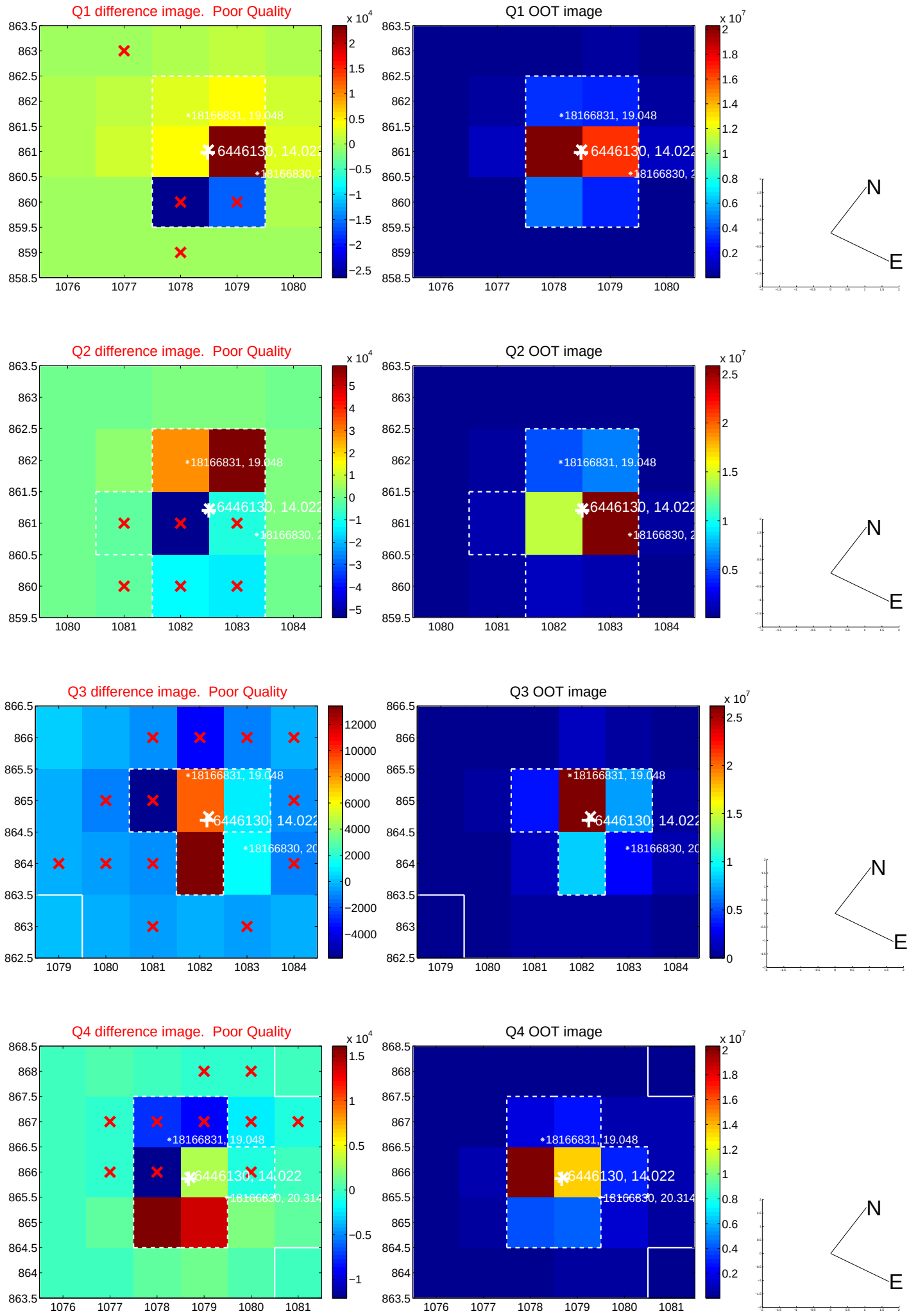
Supplemental centroid analysis for 006446130-01. Kepler magnitude: 14.02. Transit SNR 12.85
There are 0 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.20 ± 0.66	1.83	-0.85 ± 0.68	-0.85 ± 0.63

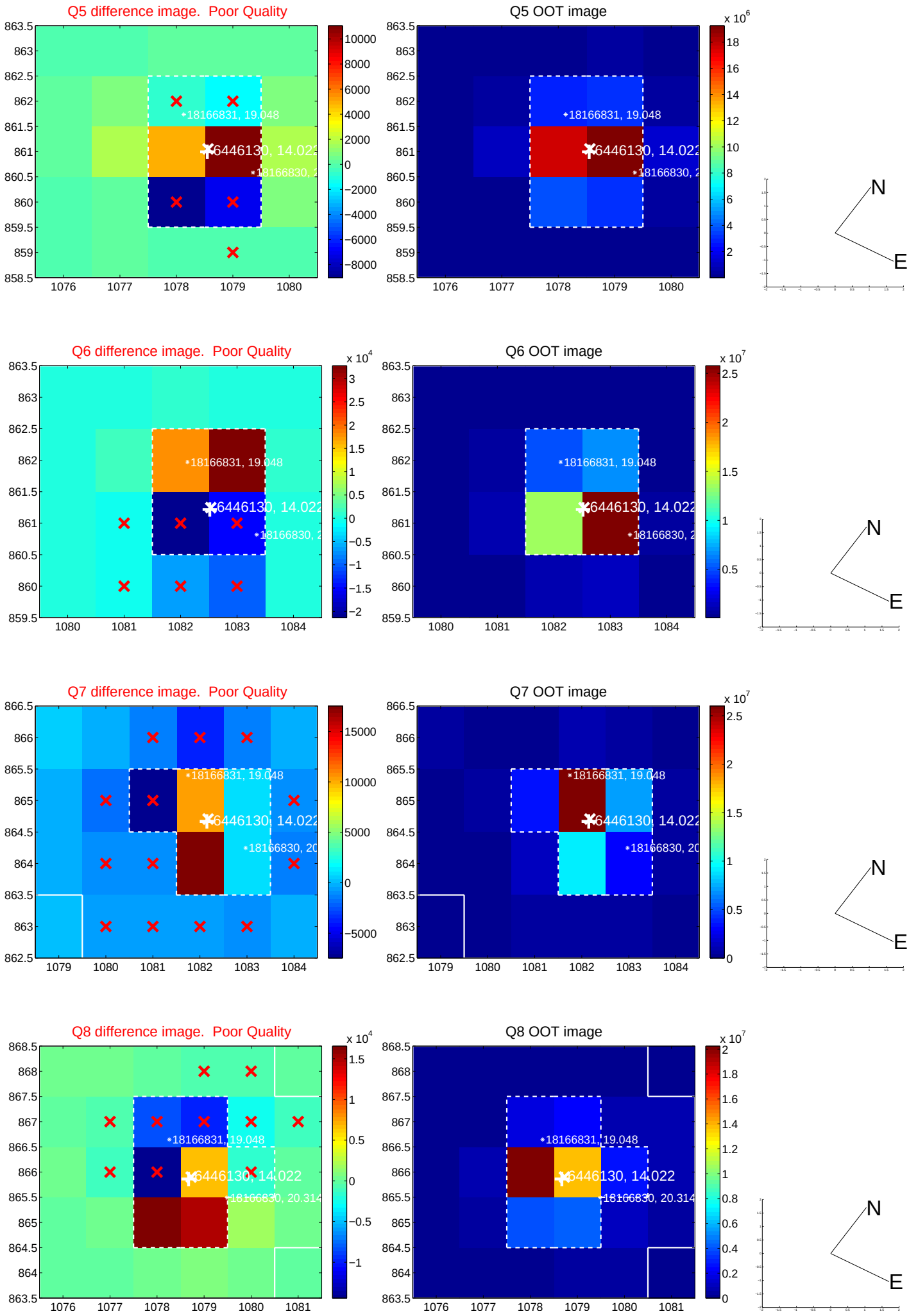


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

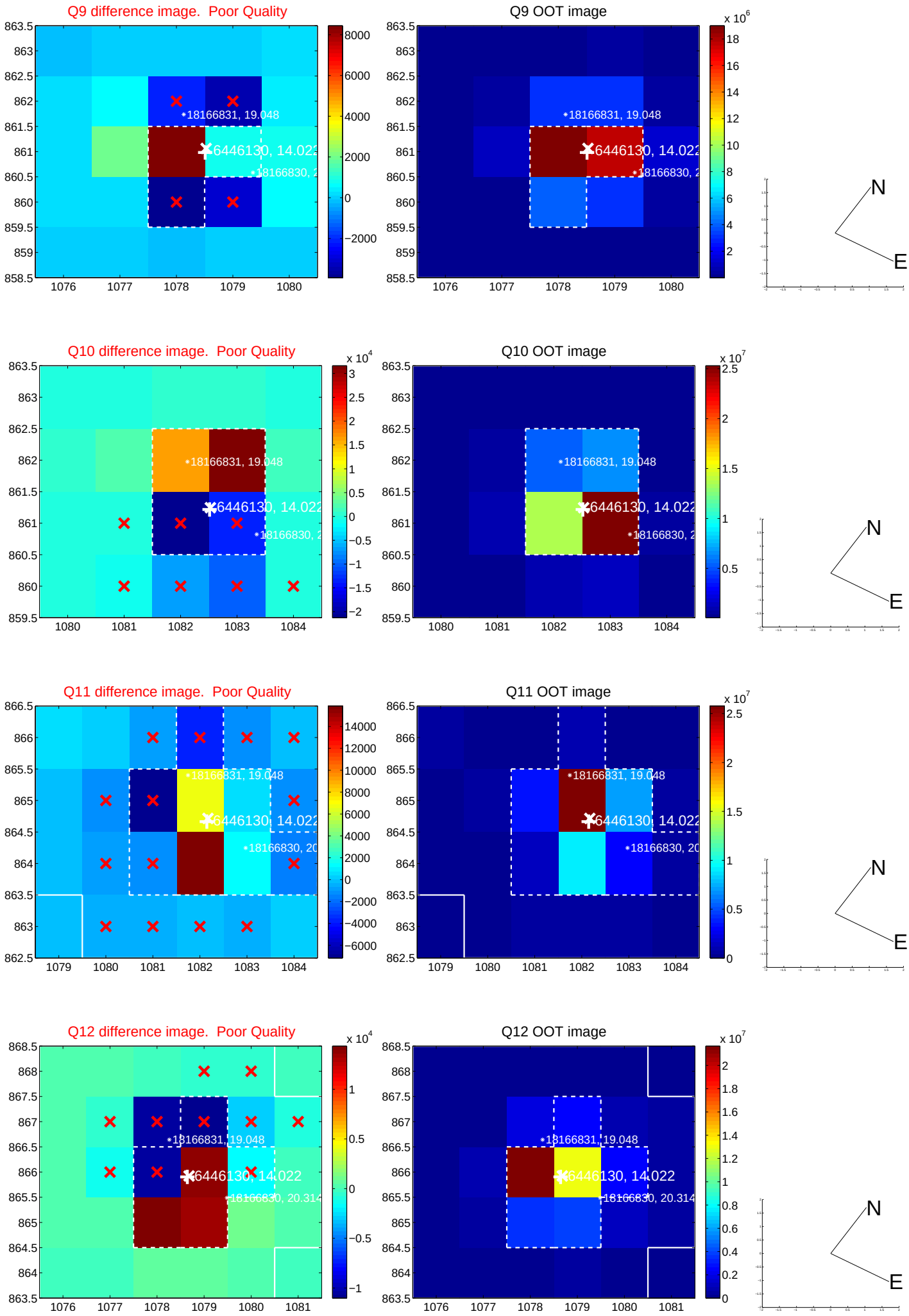
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



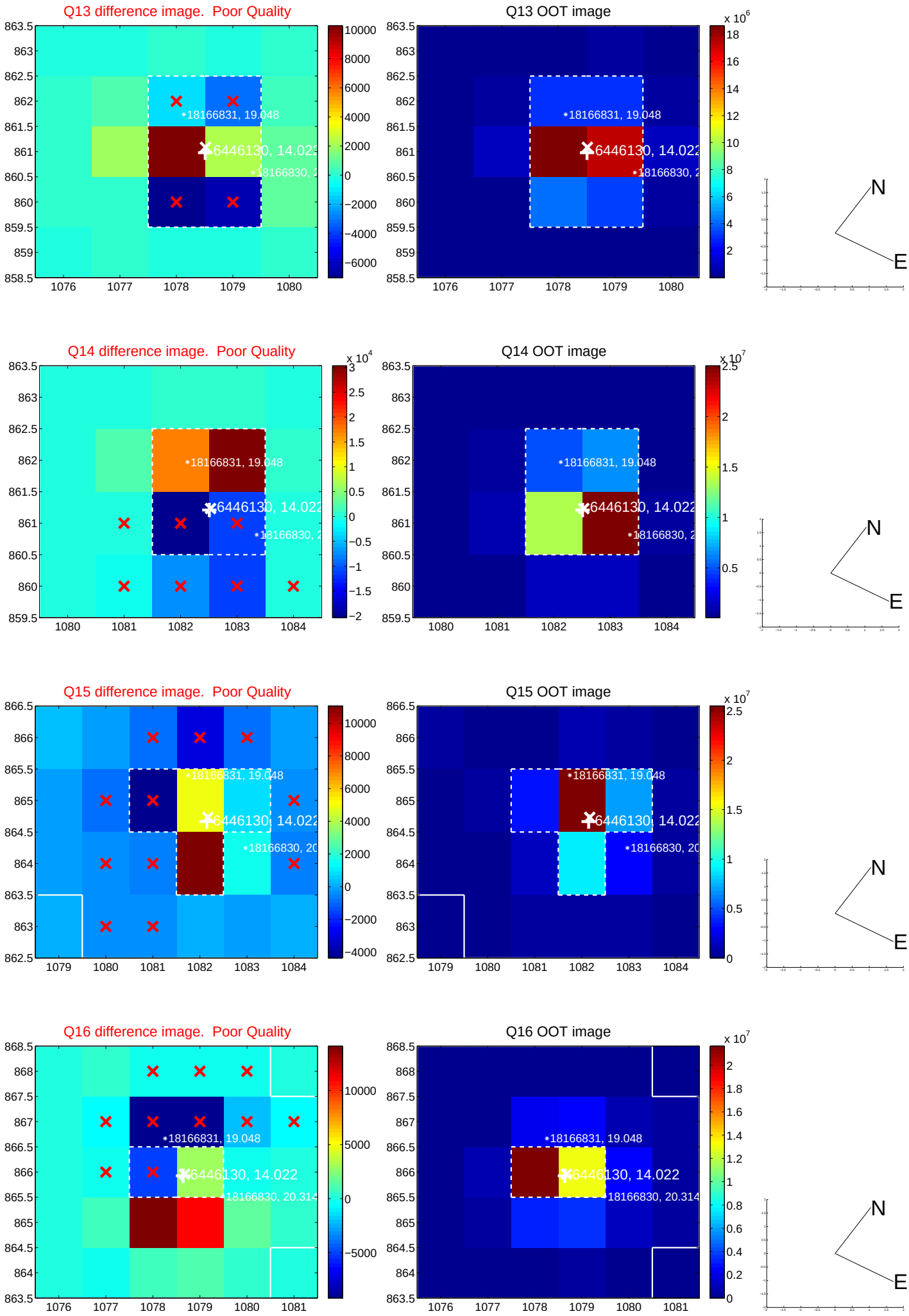
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



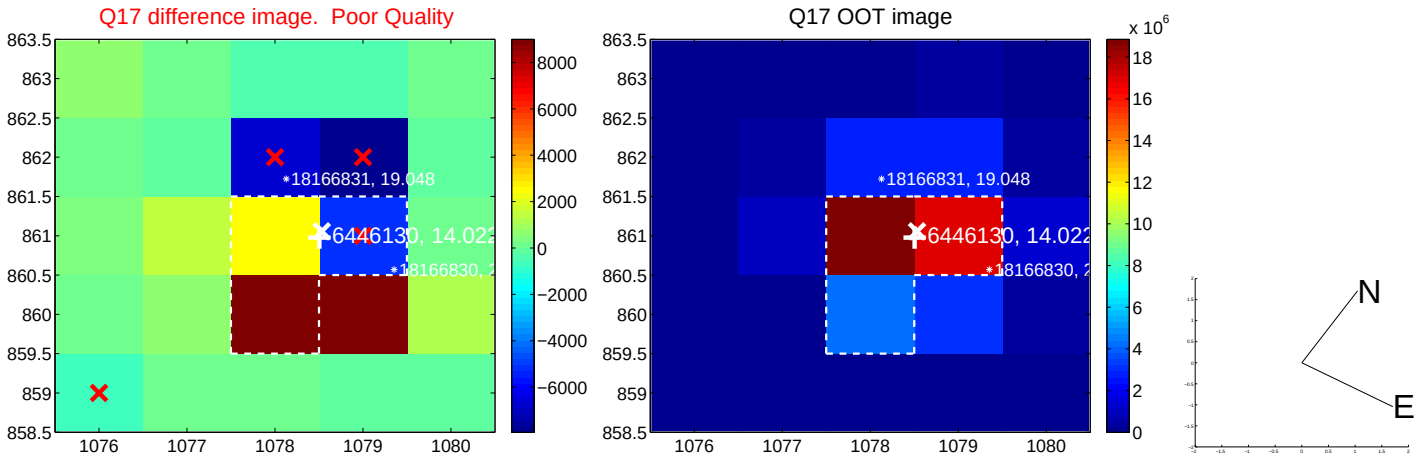
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

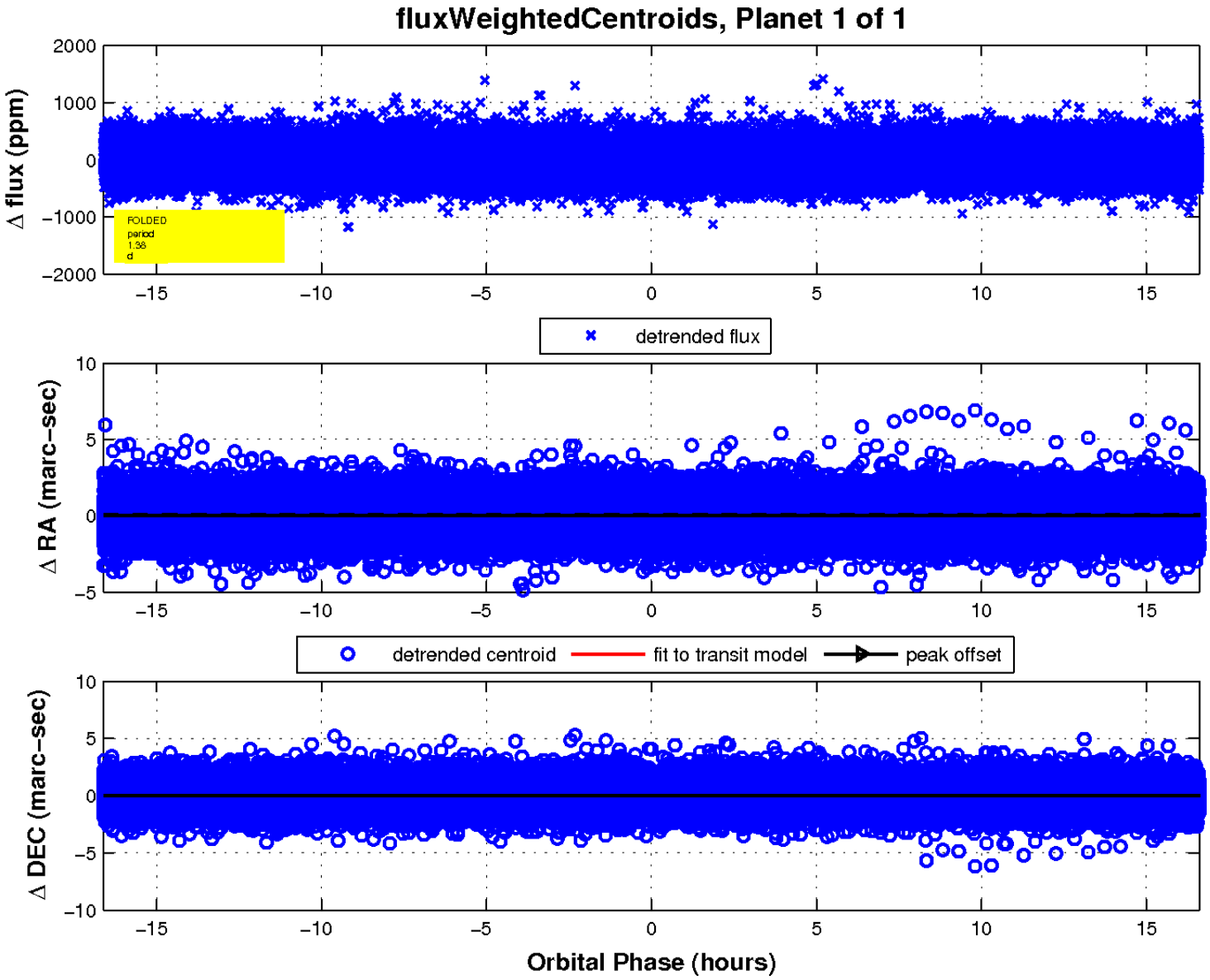


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

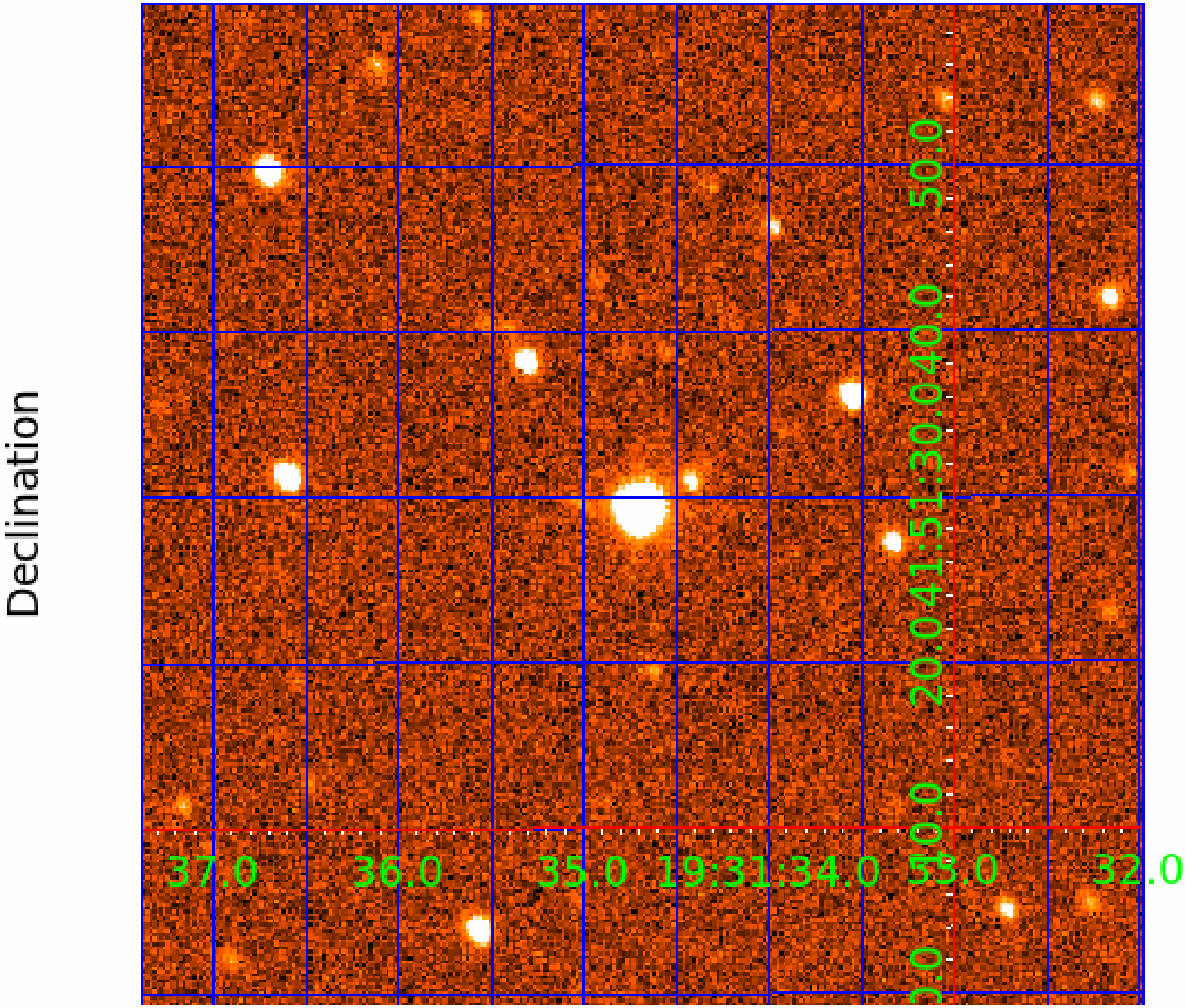


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image


Declination
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10.0
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