KIC 006526218

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 ($S_\oplus$)
006526218-01	OBS	No	611.877305	340.574190	351.1	17.078	7.9	8.7	0.99	6422	2.02	0.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006526218-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS

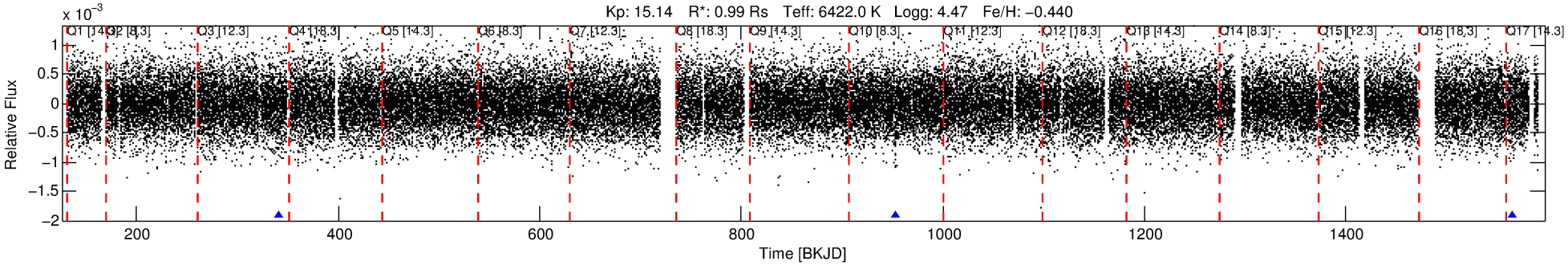
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

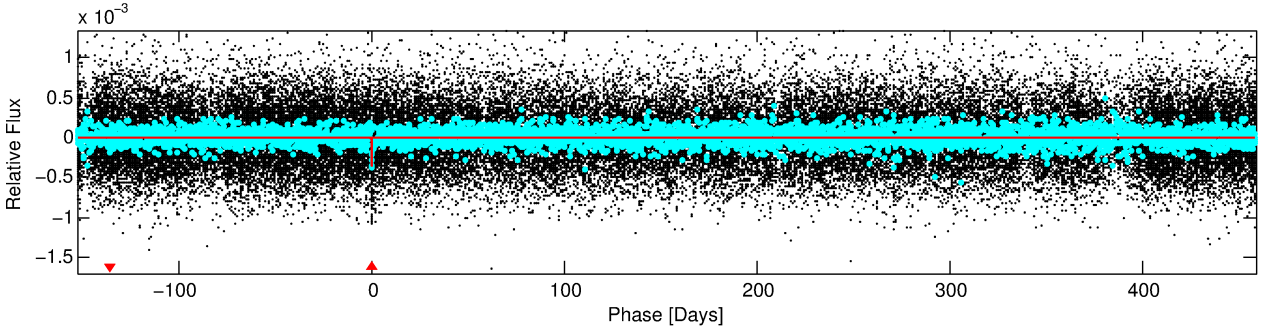
Ephemeris Match Information For 006526218-01

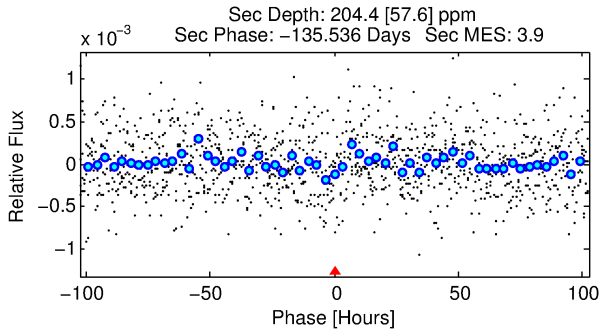
No Significant Match Found

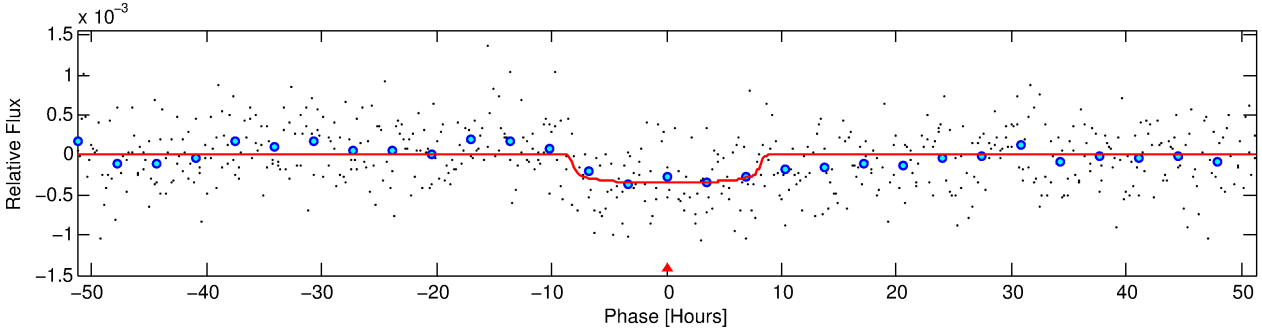
DV One-Page Summary

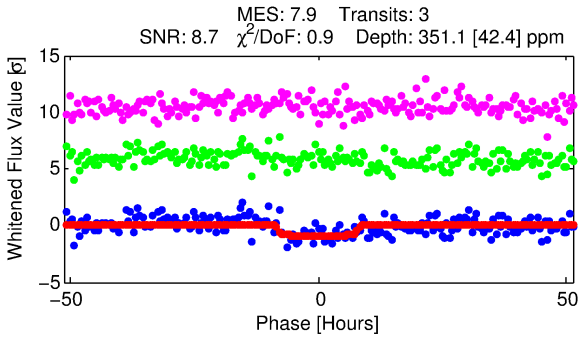
KIC: 6526218 Candidate: 1 of 1 Period: 611.877 d

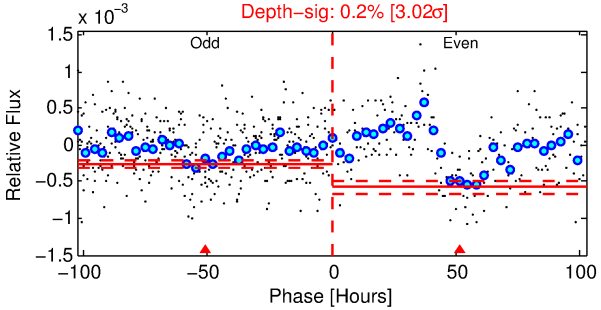


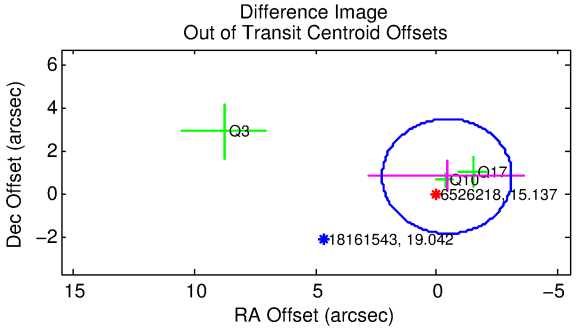












DV Fit Results:

Period = 611.87731 [0.02091] d
Epoch = 340.5742 [0.0285] BKJD
Rp/R* = 0.0188 [0.0056]
a/R* = 180.45 [289.73]
b = 0.78 [0.83]

Seff = 0.73 [0.29]
Teq = 235 [23] K
Rp = 2.02 [0.84] Re
a = 1.4301 [0.3606] AU

Ag = 56115.89 [42419.17] [1.32σ]
Teffp = 5601 [940] K [5.71σ]

DV Diagnostic Results:

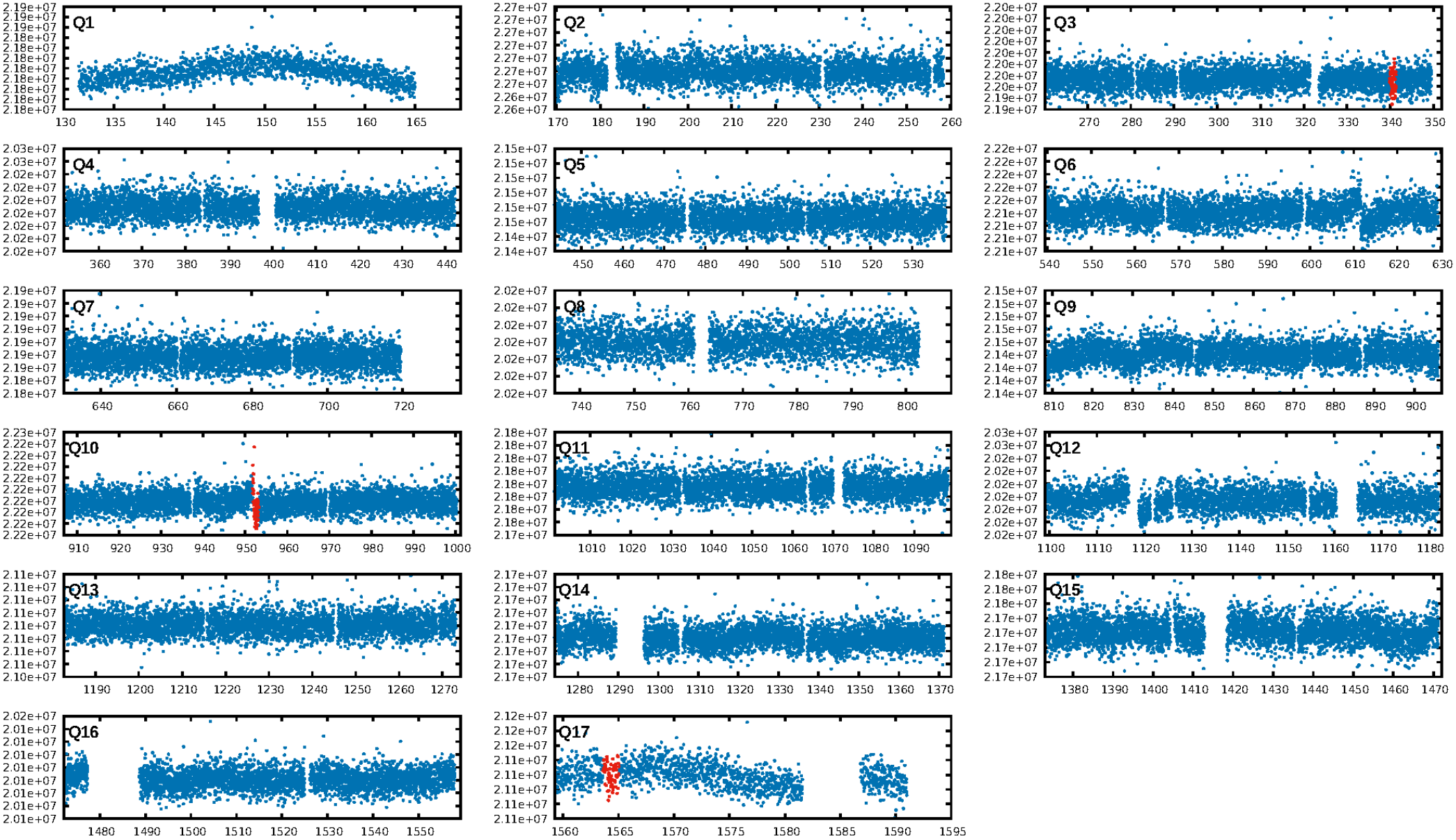
ShortPeriod−sig: N/A
LongPeriod−sig: N/A
ModelChiSquare2−sig: 0.8%
ModelChiSquareGof−sig: 99.9%
Bootstrap−pfa: 4.01e−13
RollingBand−fgt: 1.00 [2/2]
GhostDiagnostic−chr: −9.412

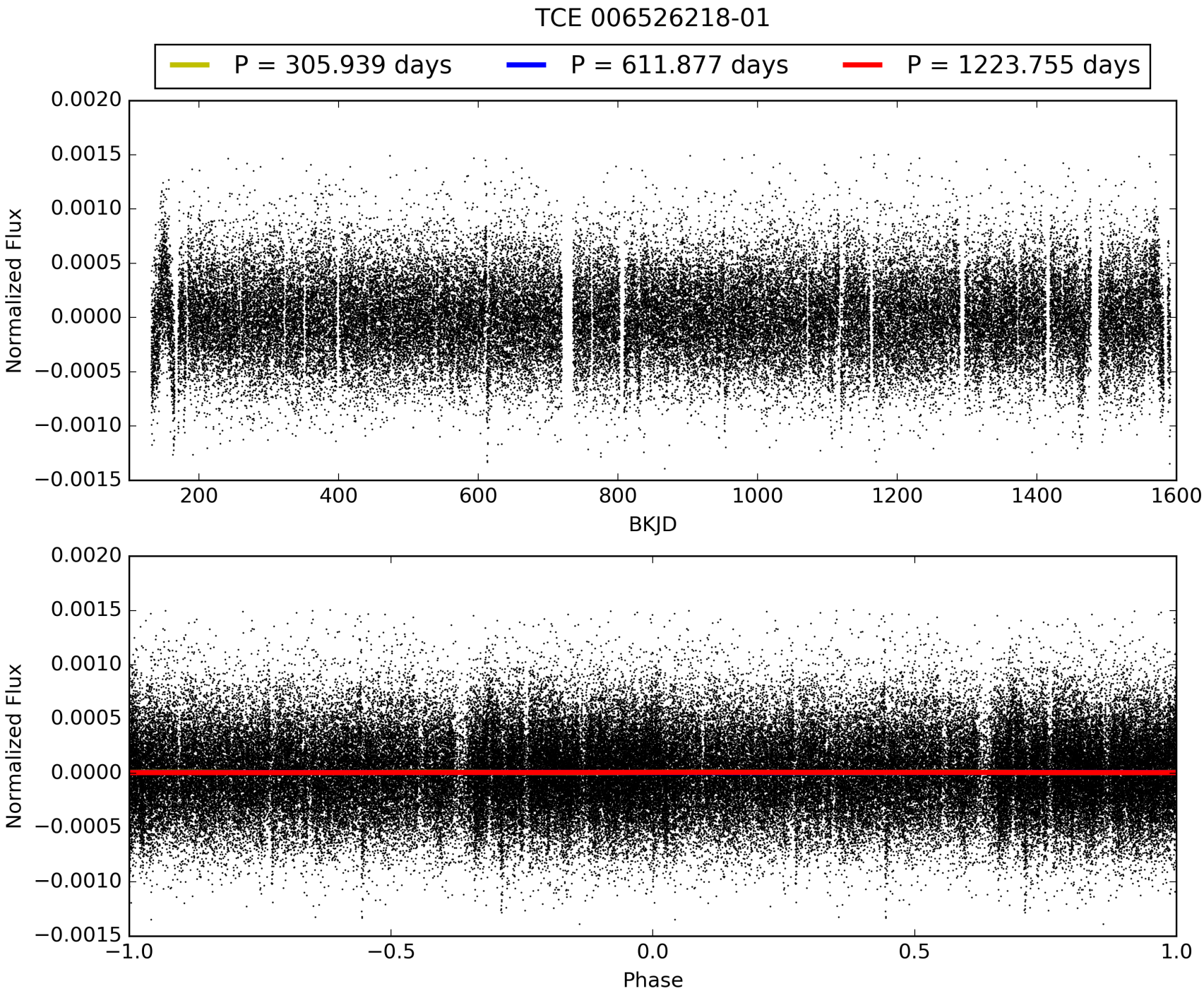
Centroid−sig: 39.5%
Centroid−so: 1.300 arcsec [0.84σ]
OotOffset−rm: 0.920 arcsec [1.03σ]
KicOffset−rm: 0.740 arcsec [0.87σ]
OotOffset−st: 1/1/0/1 [3]
KicOffset−st: 1/1/0/1 [3]
DiffImageQuality−fgm: 0.33 [1/3]
DiffImageOverlap−fno: 1.00 [3/3]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30−Jan−2016 14:44:33 Z

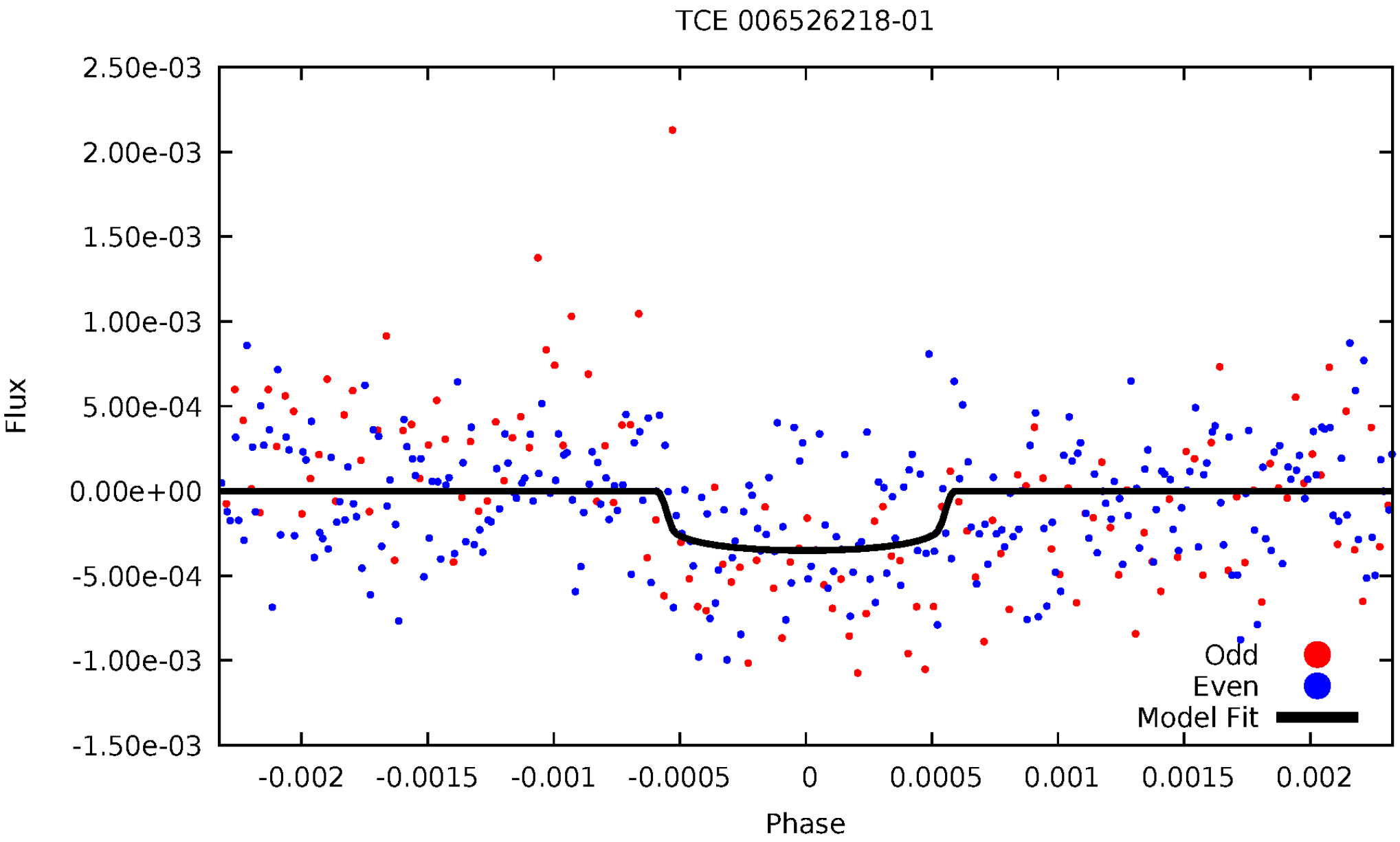
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006526218-01, PDC Light Curves

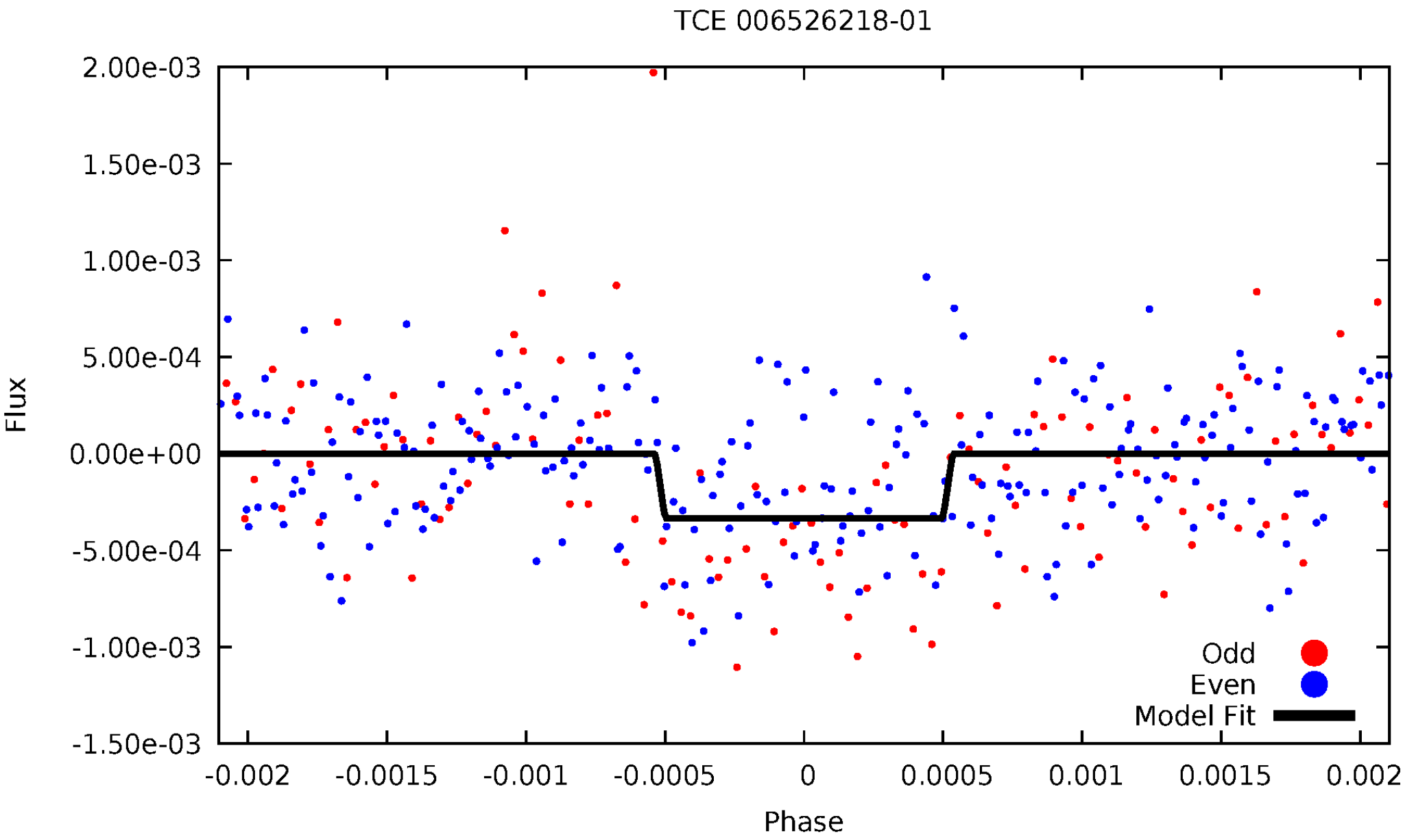



TCE 006526218-01
P = 305.939 days
P = 611.877 days
P = 1223.755 days
Normalized Flux
BKJD
Normalized Flux
Phase

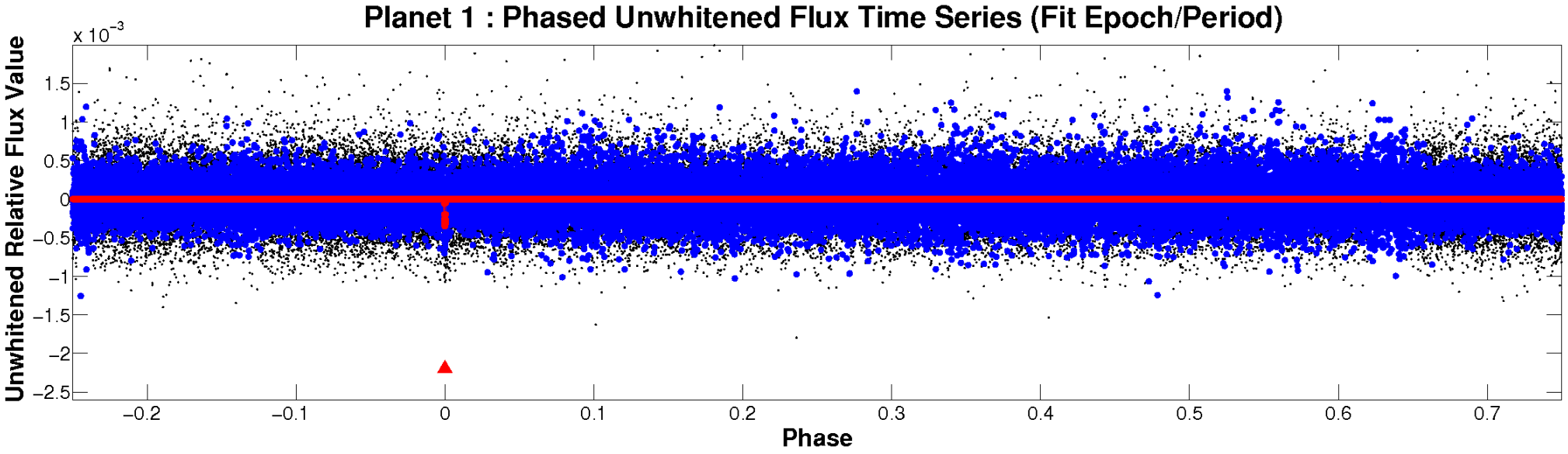
DV Odd/Even

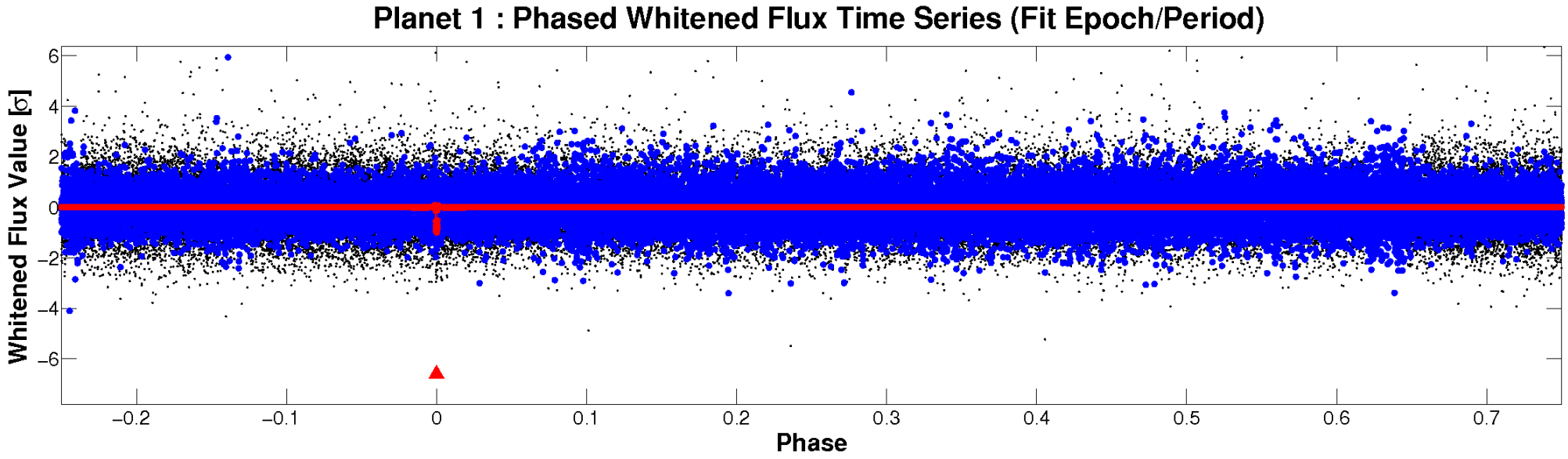

TCE 006526218-01
2.50e-03
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 006526218-01
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

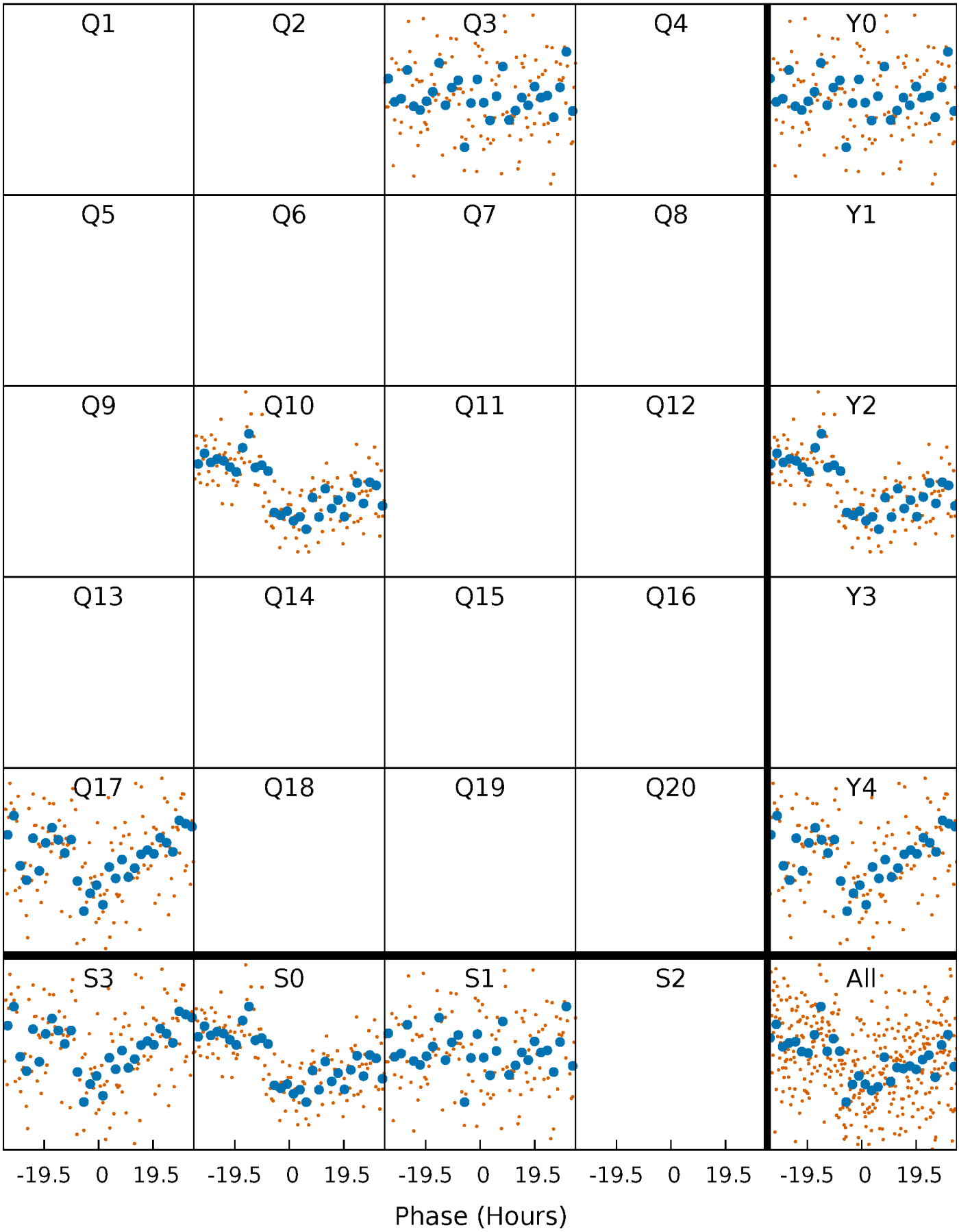
Non-Whitened Vs. Whitened Light Curve





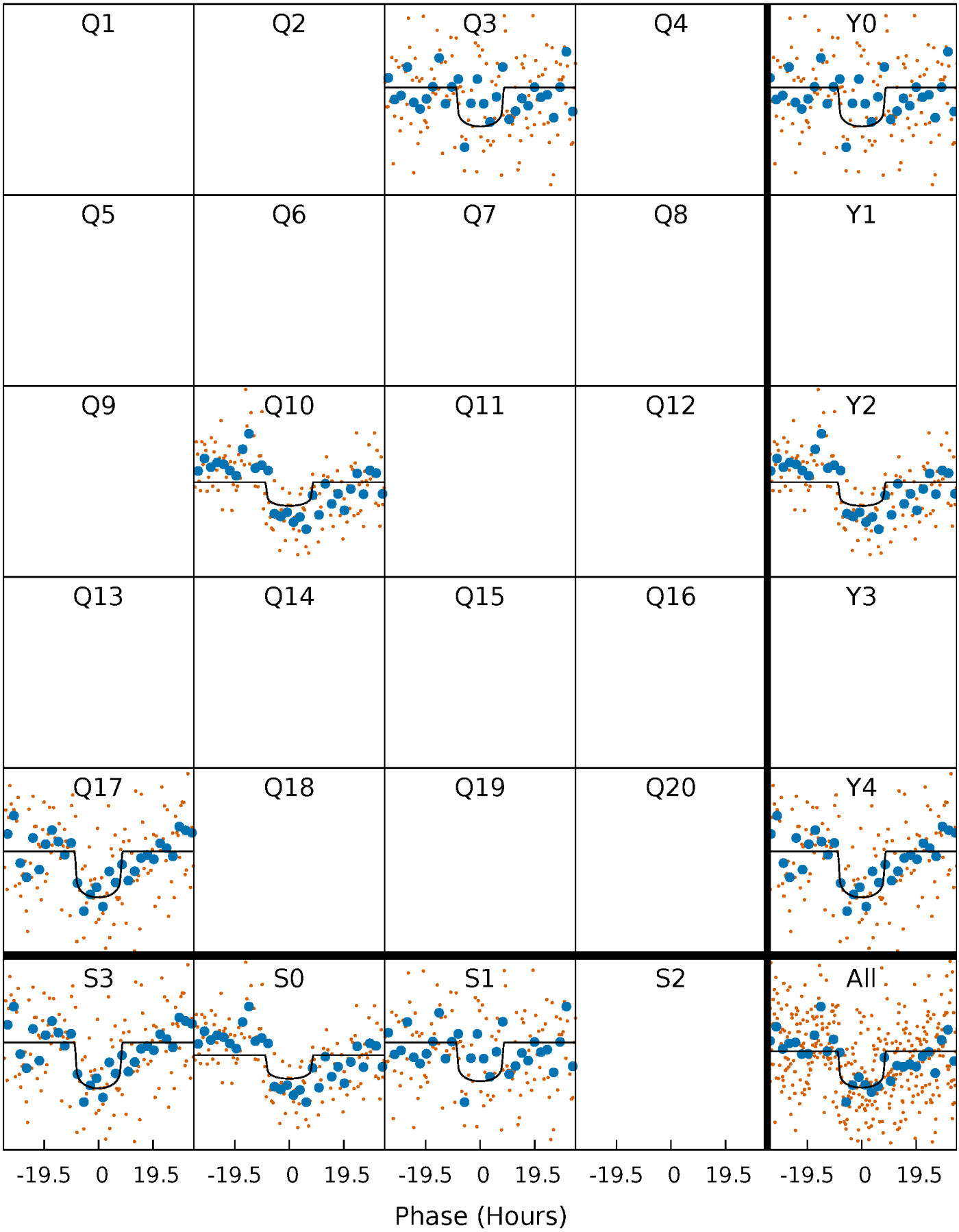
PDC Quarter-Phased Transit Curves

TCE 006526218-01 P=611.877305 Days T_0=340.574190 (BKJD)



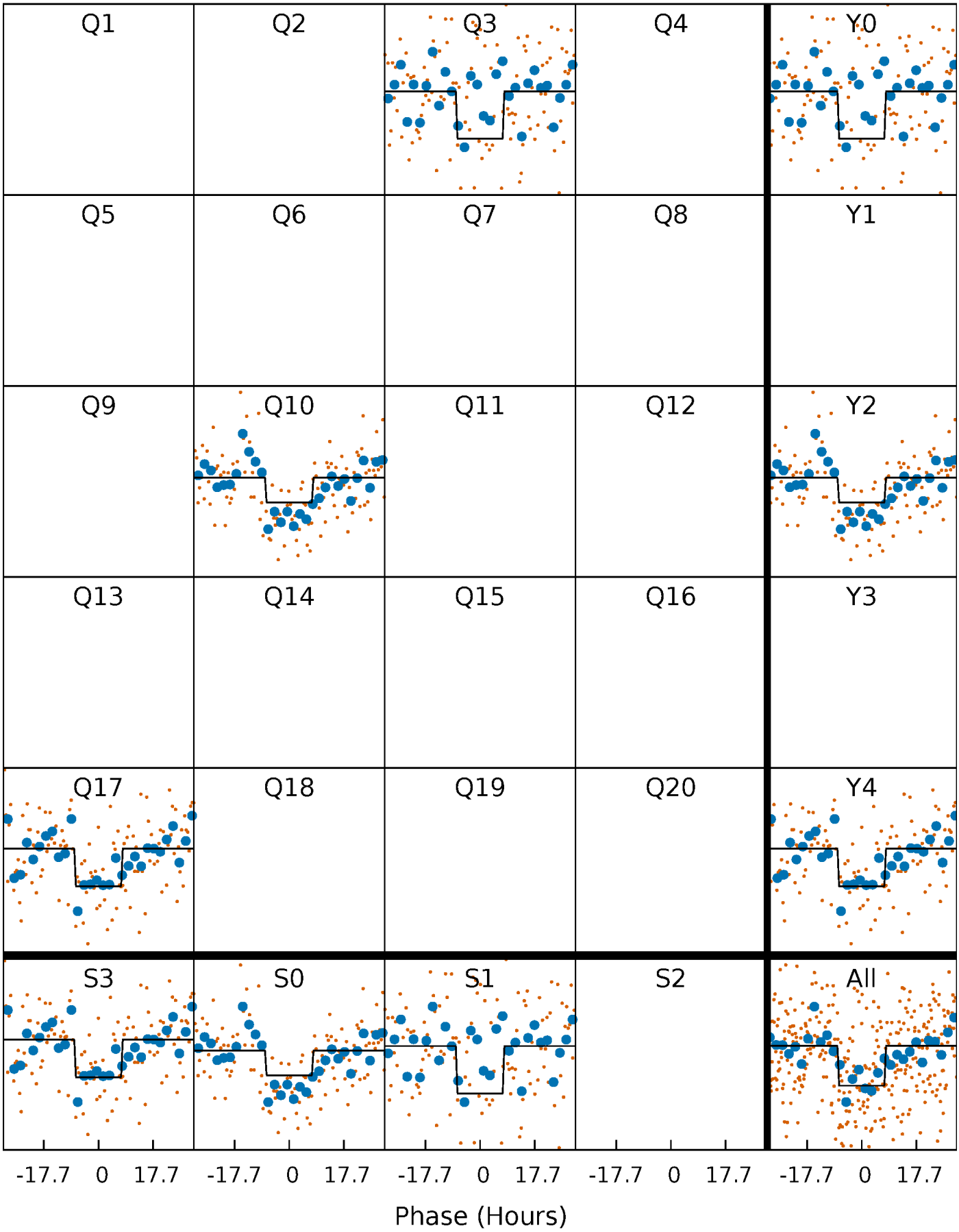
DV Quarter-Phased Transit Curves

TCE 006526218-01 P=611.877305 Days T_0=340.574190 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

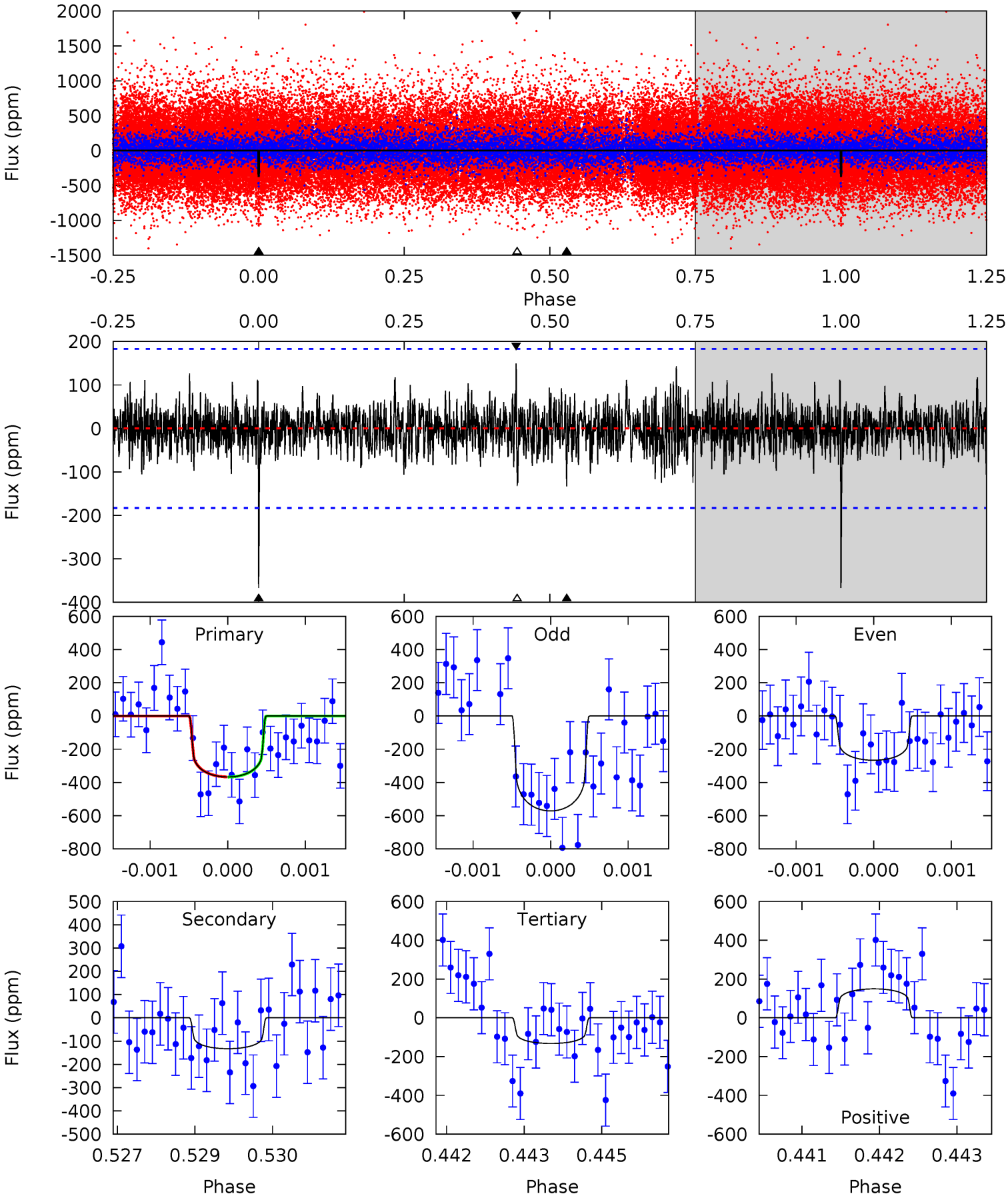
TCE 006526218-01 P=611.855709 Days T_0=340.603577 (BKJD)



DV Model-Shift Uniqueness Test

006526218-01, P = 611.877305 Days, E = 340.574190 Days

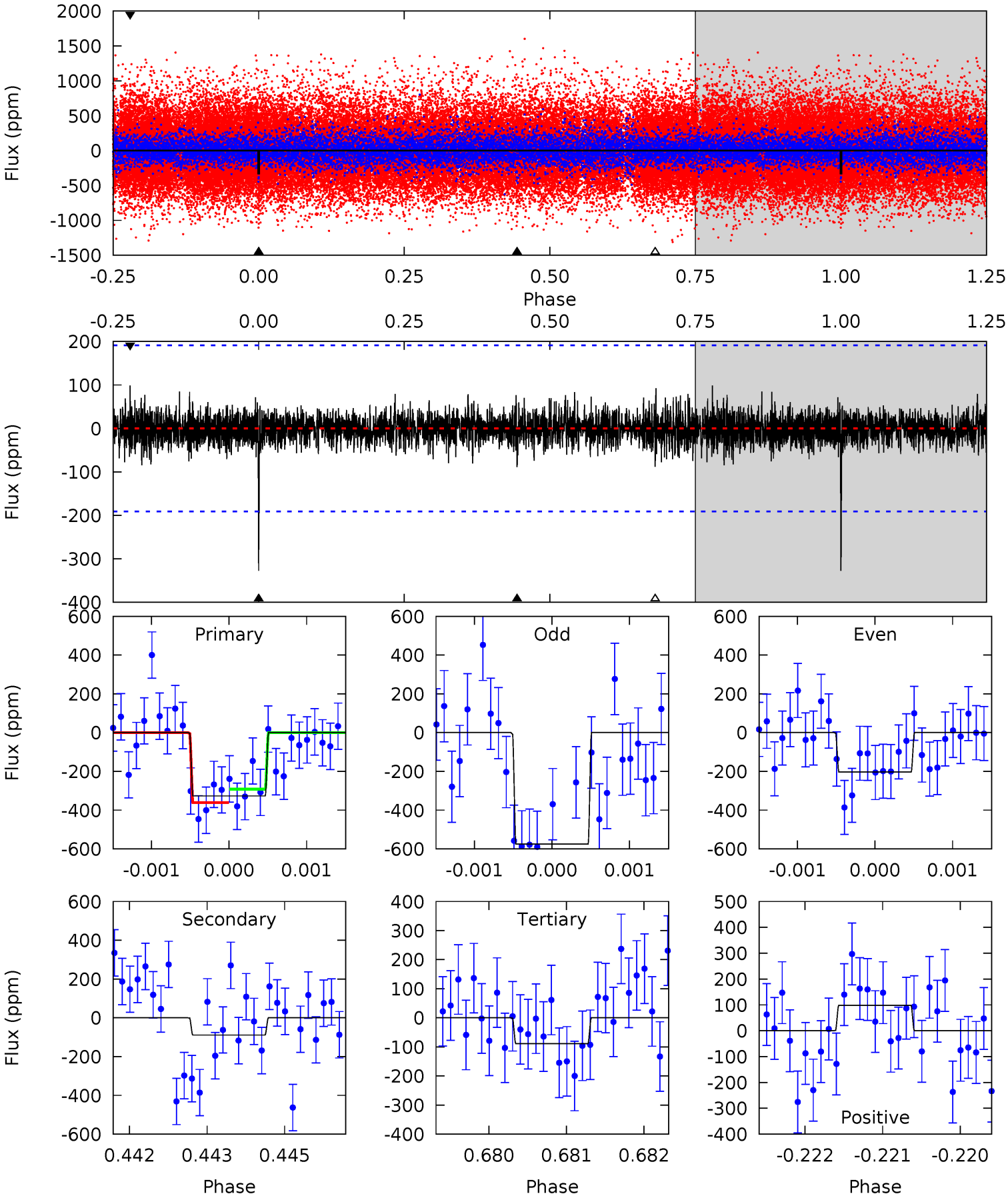
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	3.93	3.92	4.43	5.42	3.24	1.09	6.96	6.45	0.01	-0.49	4.23	1.02	0.29	0.02



Alt Model-Shift Uniqueness Test

006526218-01, P = 611.855709 Days, E = 340.603577 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.31	2.53	2.51	2.81	5.44	3.27	0.67	6.79	6.50	0.01	-0.28	5.02	1.04	0.23	0.99



Stellar Parameters For KIC 006526218

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6422^{+155}_{-222}	$4.467^{+0.052}_{-0.208}$	$-0.440^{+0.250}_{-0.350}$	$0.987^{+0.289}_{-0.096}$	$1.040^{+0.128}_{-0.142}$	$1.525^{+0.411}_{-0.776}$
	+2%/-3%	+1%/-5%	+57%/-80%	+29%/-10%	+12%/-14%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006526218-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-133±34	$2.11^{+0.69}_{-0.61}$	335^{+22}_{-15}	5075^{+831}_{-585}	32308^{+32989}_{-14896}
Alt.	-89±35	$2.05^{+0.67}_{-0.62}$	334^{+23}_{-15}	4687^{+924}_{-630}	22828^{+28083}_{-12905}

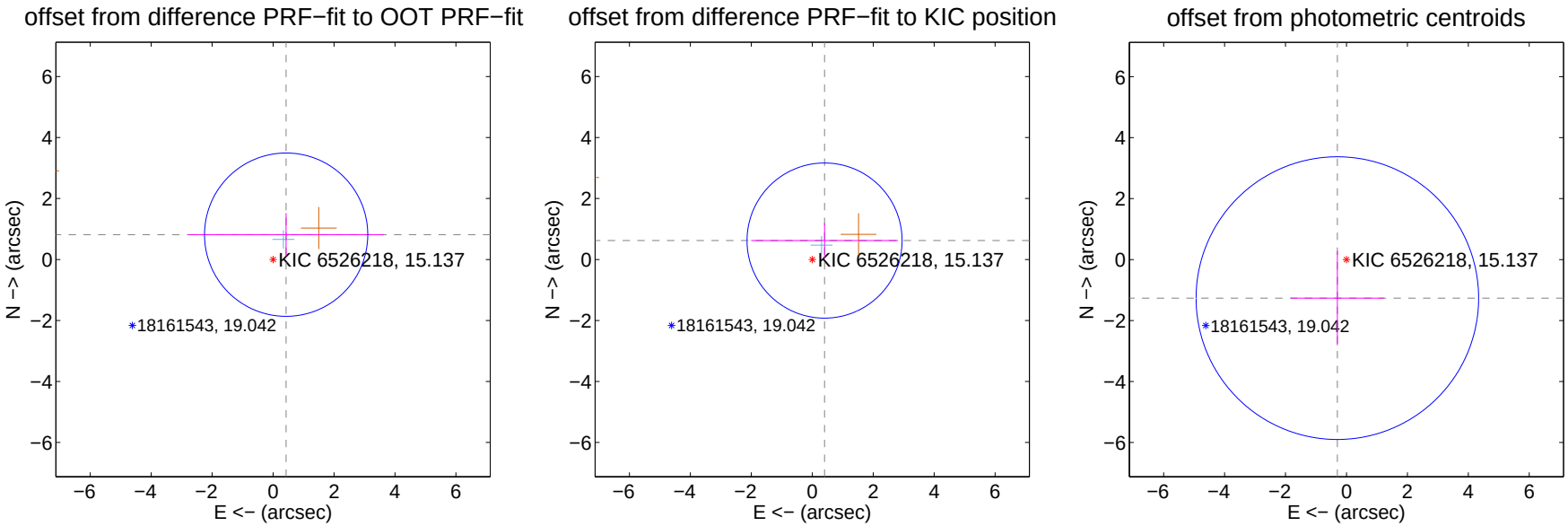
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

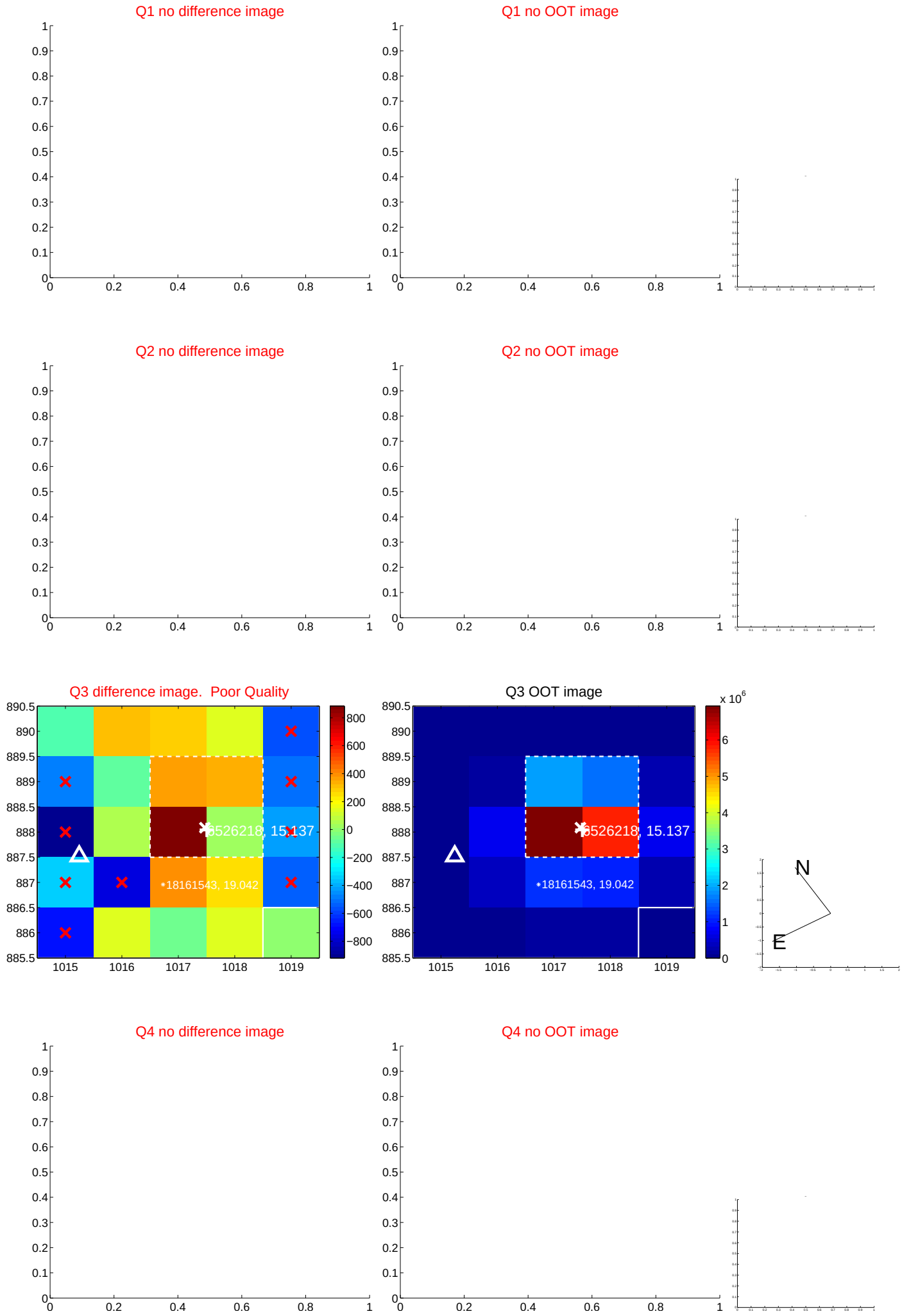
Supplemental centroid analysis for 006526218-01. Kepler magnitude: 15.14. Transit SNR 8.69
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.920 ± 0.893	1.03	-0.428 ± 3.206	0.814 ± 0.706
PRF-fit source offset from KIC position	0.740 ± 0.848	0.87	-0.403 ± 2.407	0.621 ± 0.572
photometric centroid source offset	1.30 ± 1.55	0.84	0.30 ± 1.53	-1.26 ± 1.55

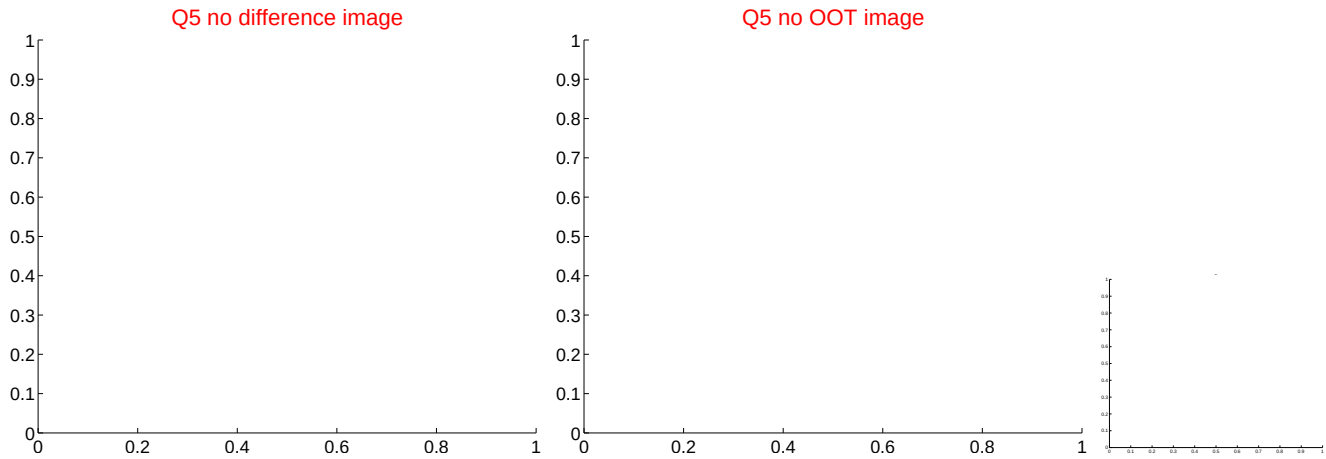


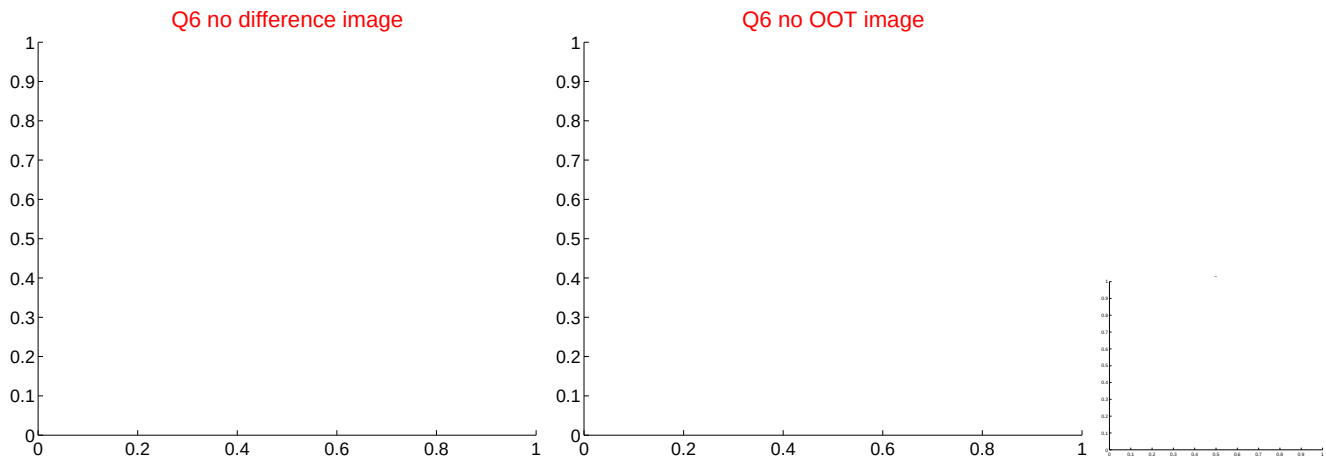
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: 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.

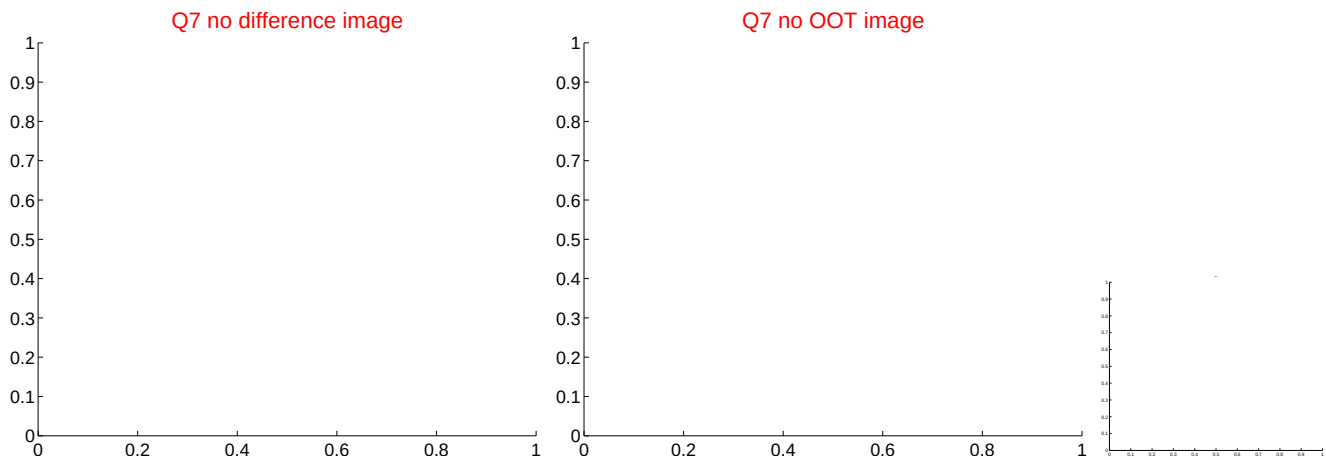
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

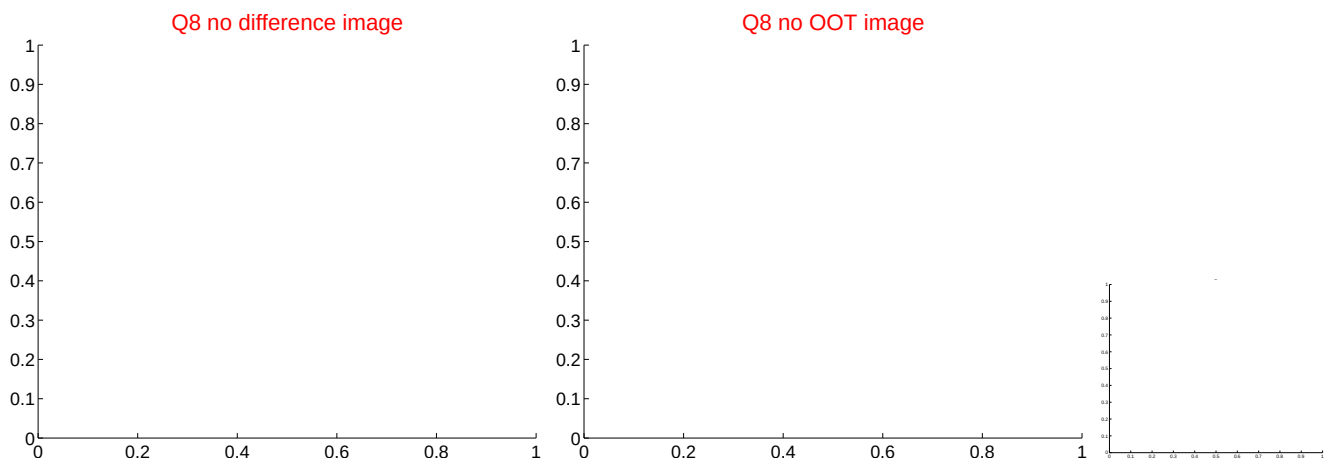


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

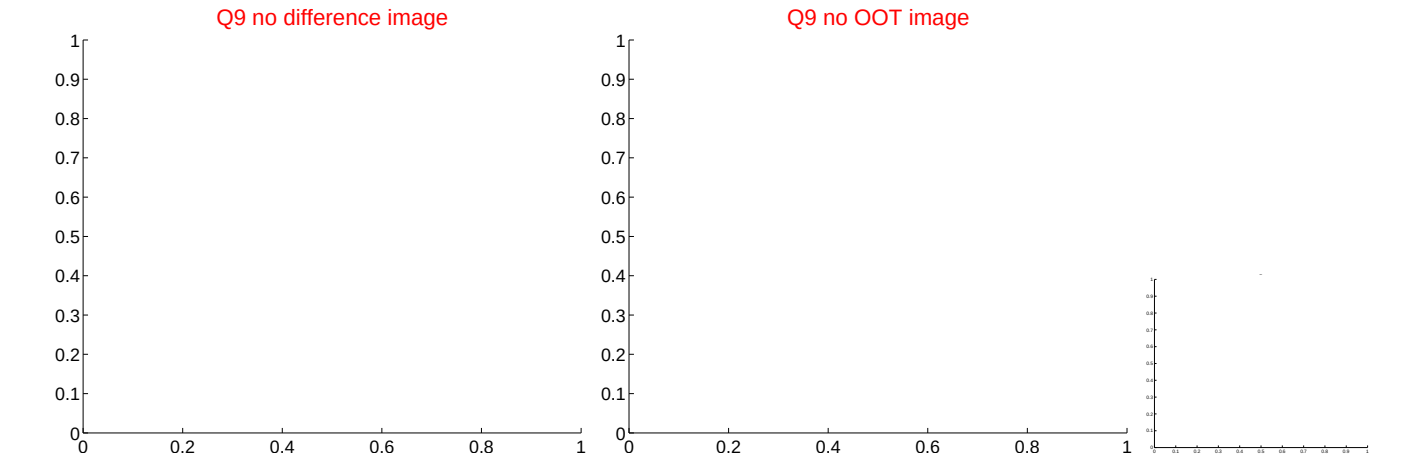


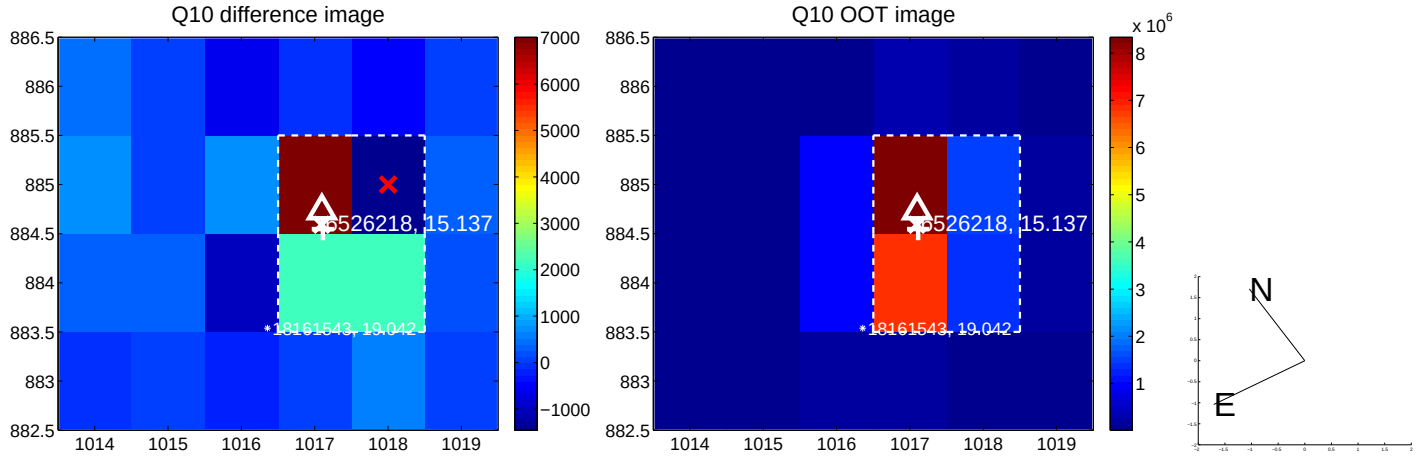


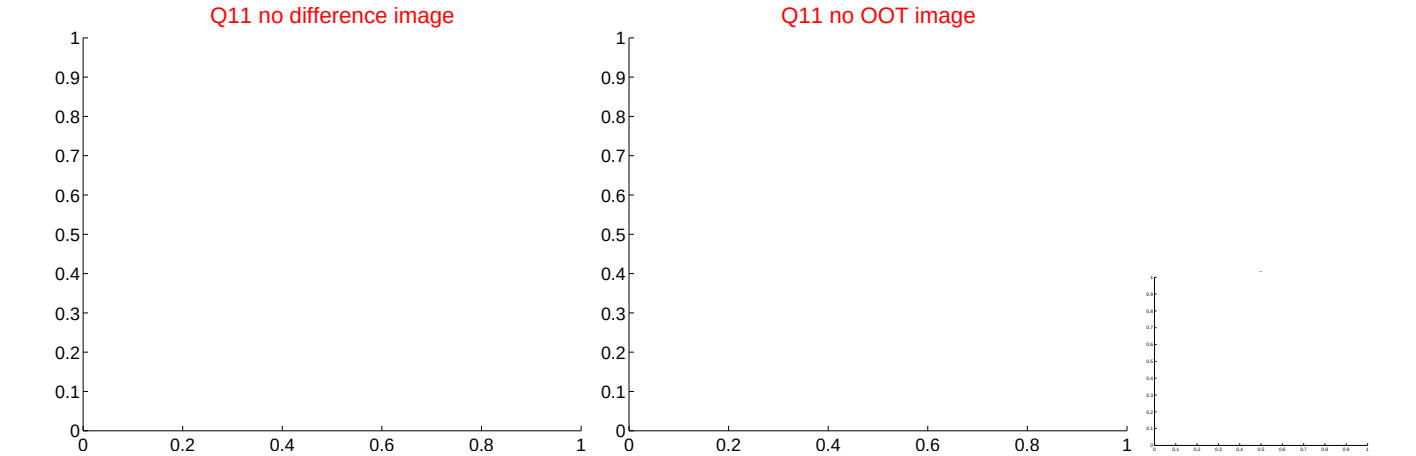


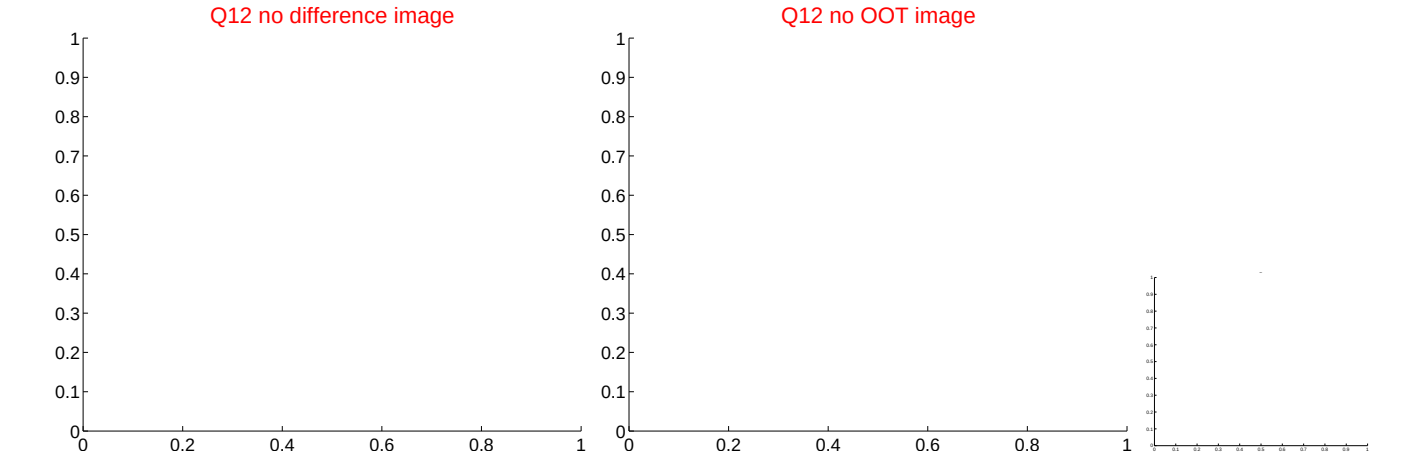


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

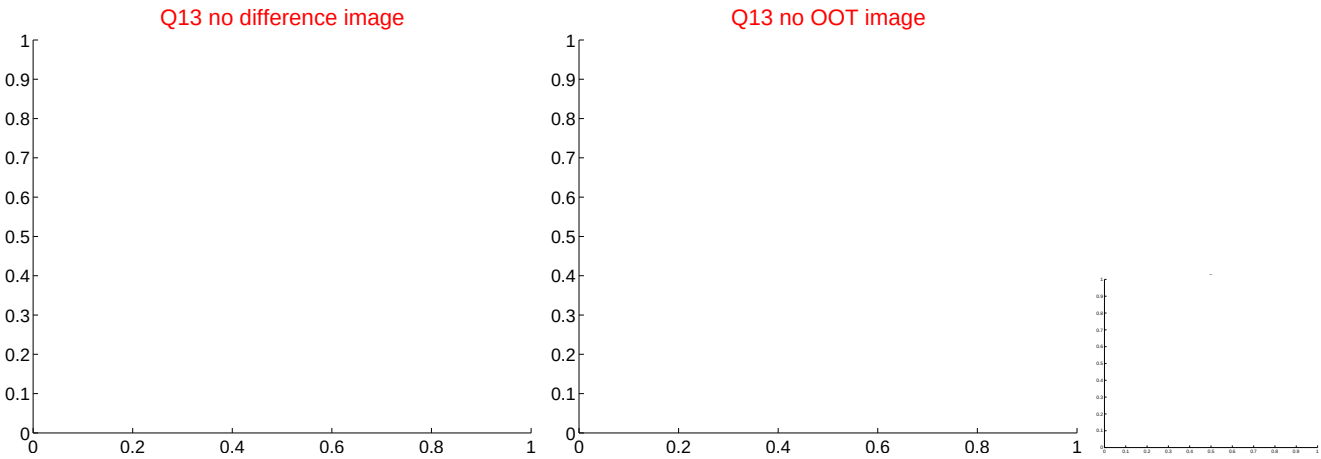


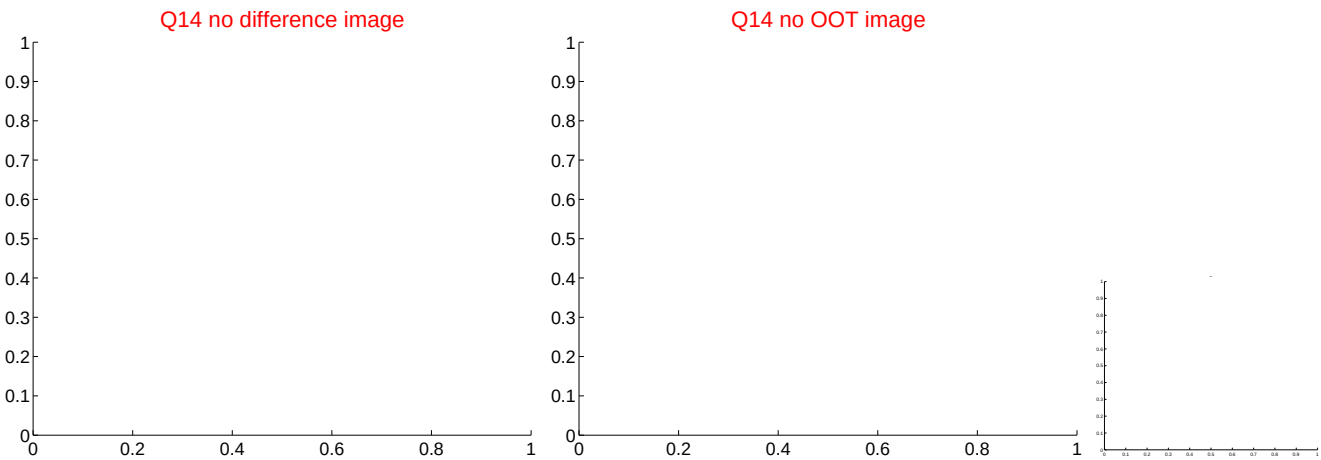


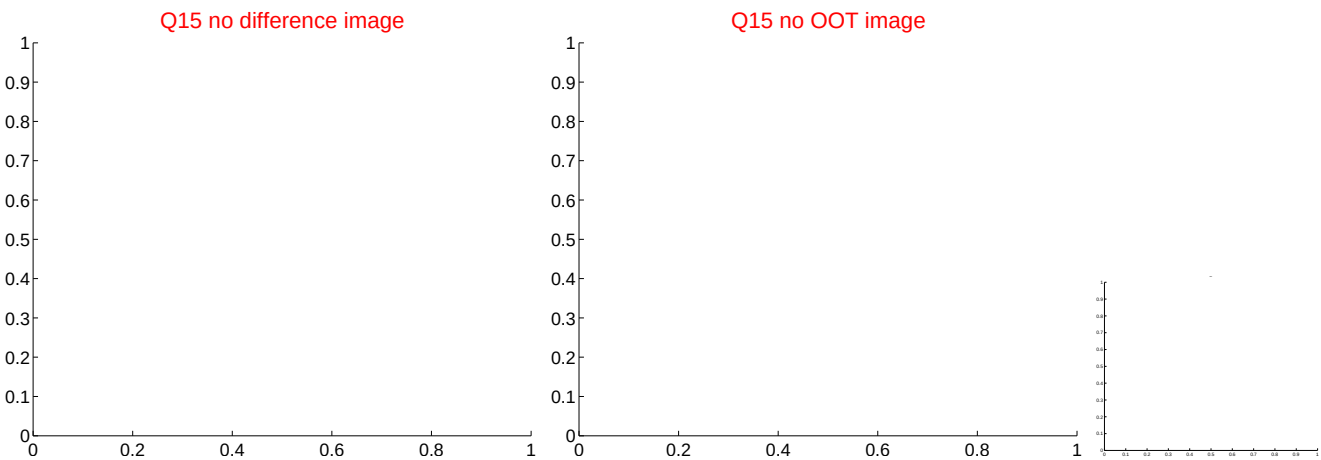


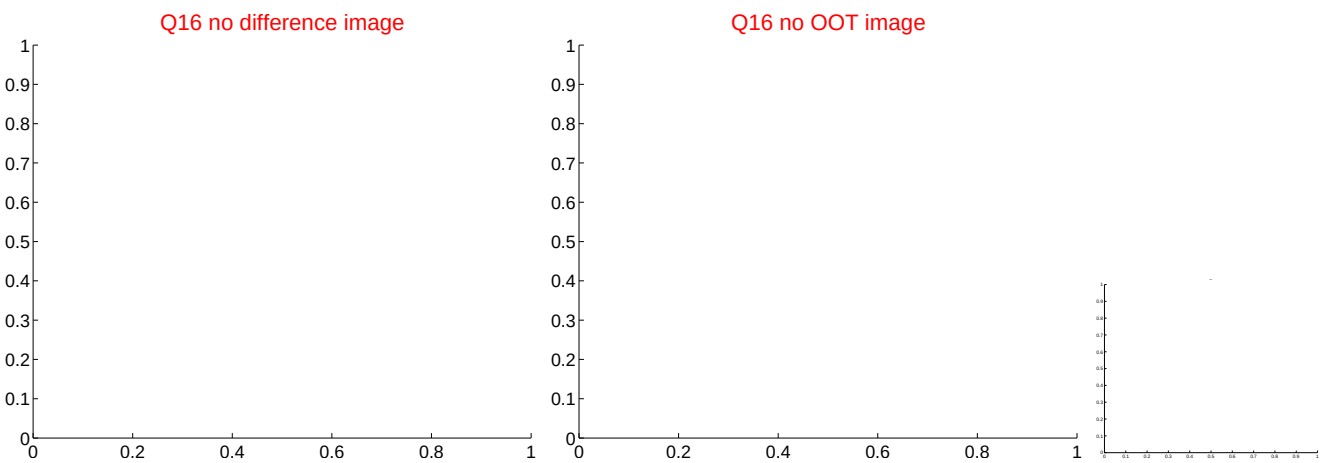


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

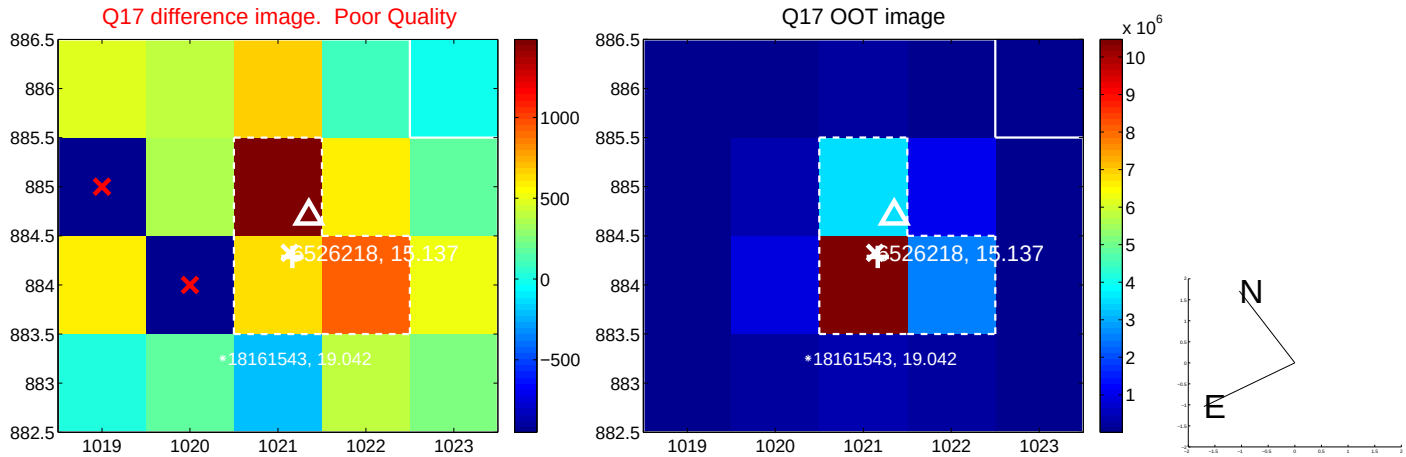


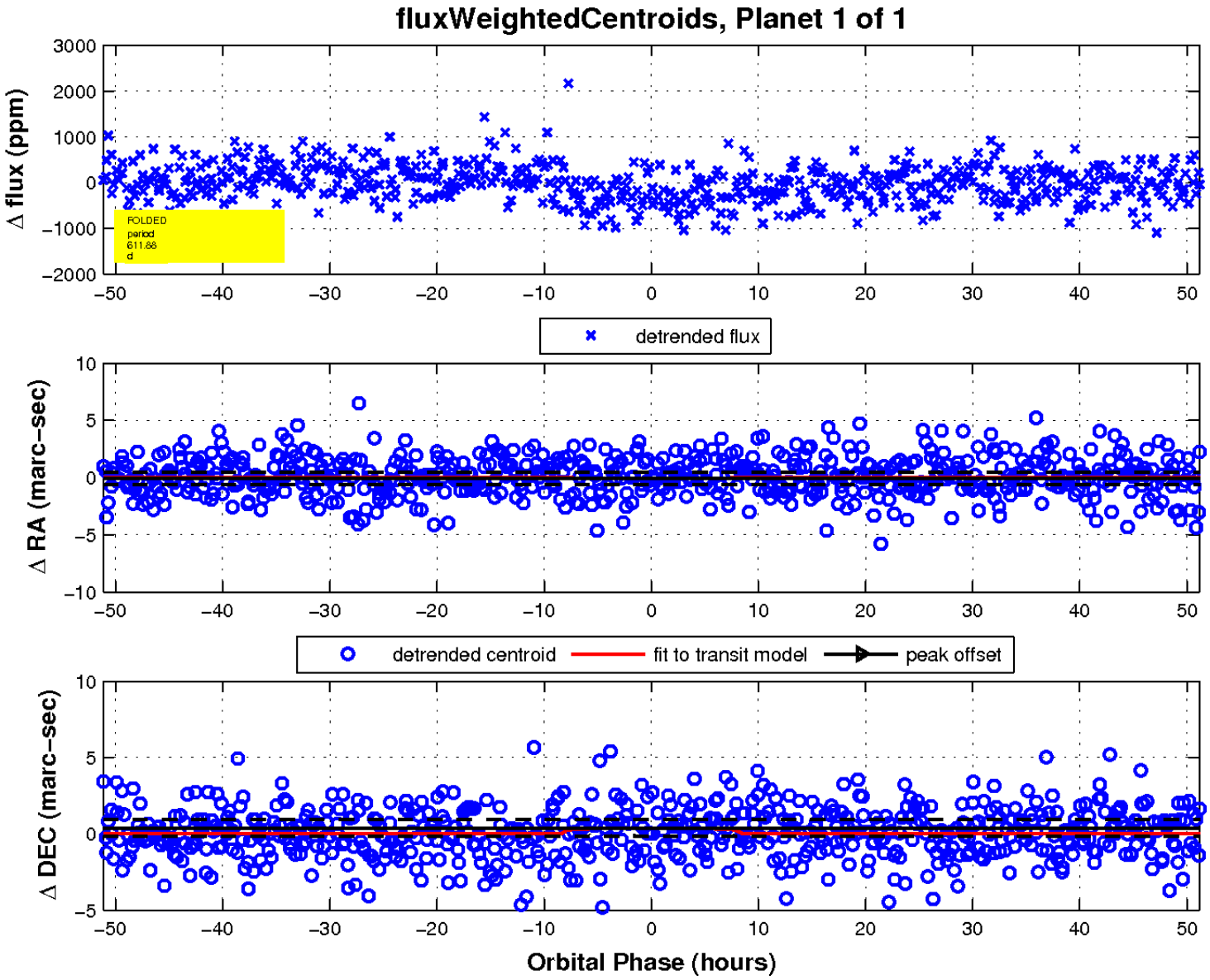
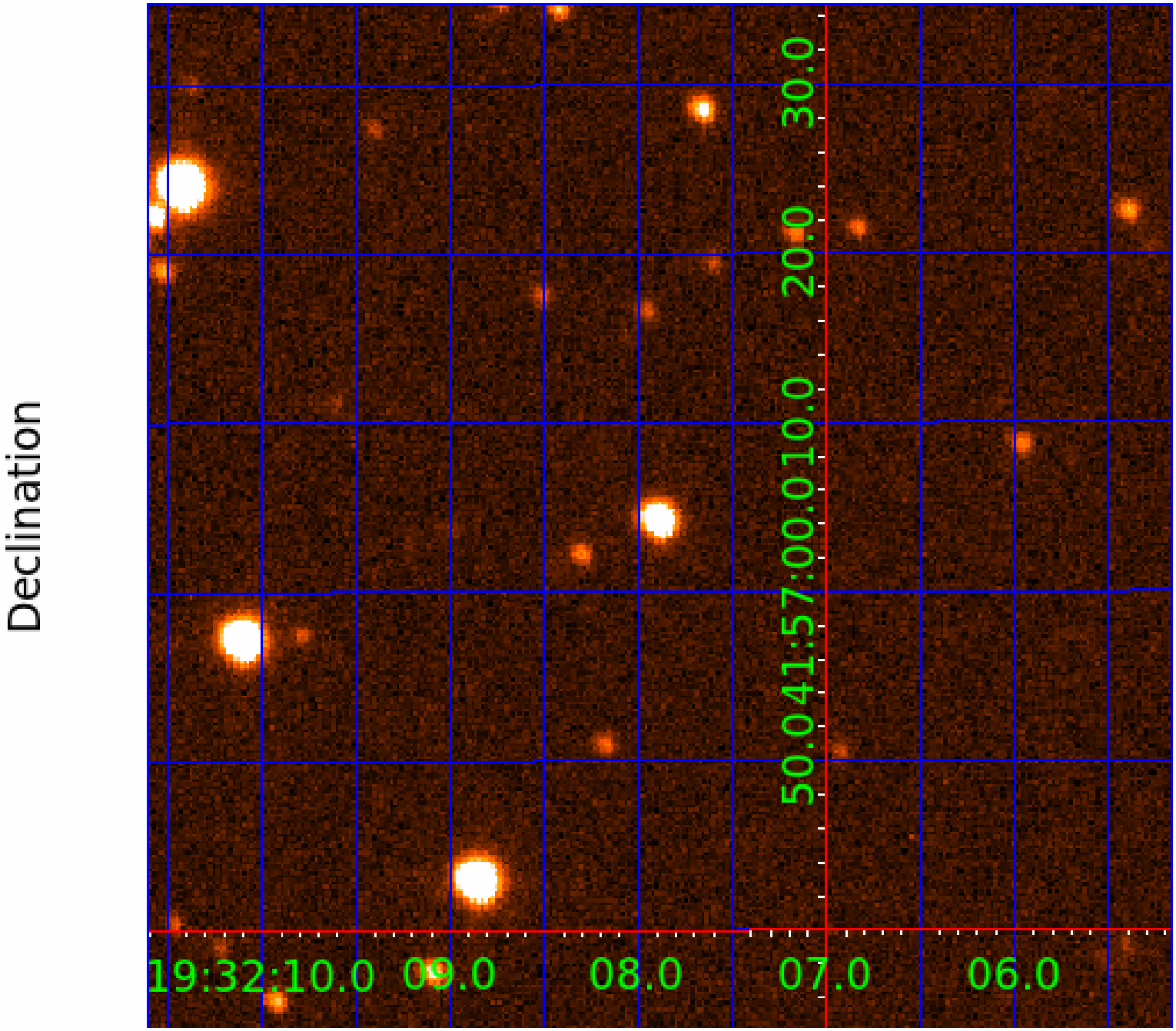






white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image