KIC 008125652

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 ($S_\oplus$)
008125652-01	OBS	No	3.182158	131.504873	0.0	18.631	9.8	0.0	2.45	6292	0.00	3841.77
008125652-02	OBS	No	28.727124	149.308878	353.3	21.161	9.6	10.9	2.45	6292	9.02	204.38
008125652-03	OBS	No	110.196326	205.240048	229.1	3.744	9.3	4.8	2.45	6292	4.33	34.04
008125652-04	OBS	No	110.811196	202.626594	257.3	12.500	9.1	-1.0	2.45	6292	3.94	33.78
008125652-05	OBS	No	132.025221	179.090211	365.9	3.115	8.4	8.0	2.45	6292	4.88	26.75
008125652-06	OBS	No	145.168027	268.471453	350.6	8.490	7.3	6.9	2.45	6292	5.07	23.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008125652-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV
008125652-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
008125652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
008125652-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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.

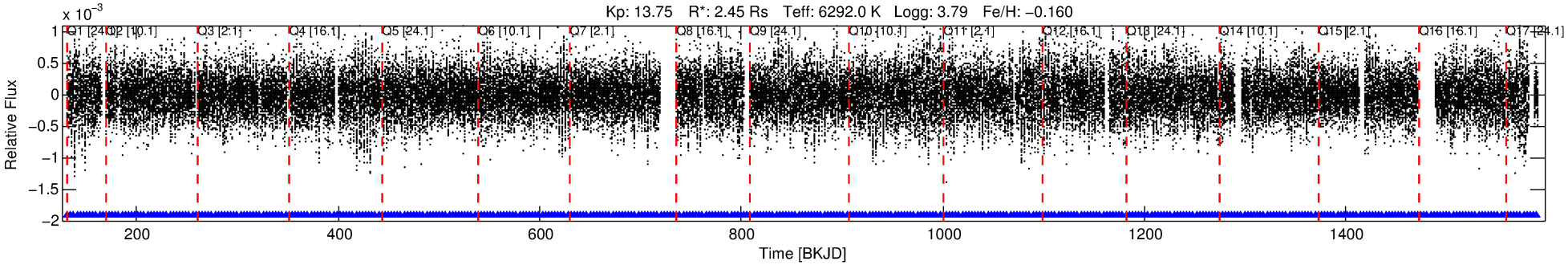
Ephemeris Match Information For 008125652-01

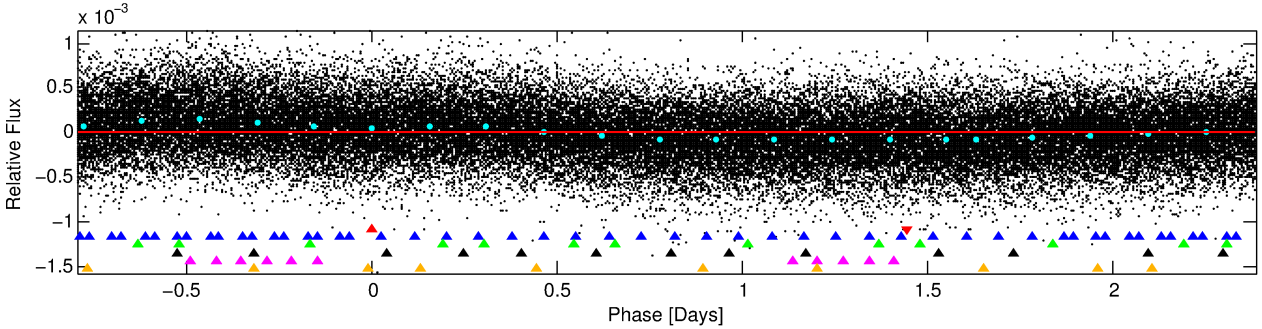
No Significant Match Found

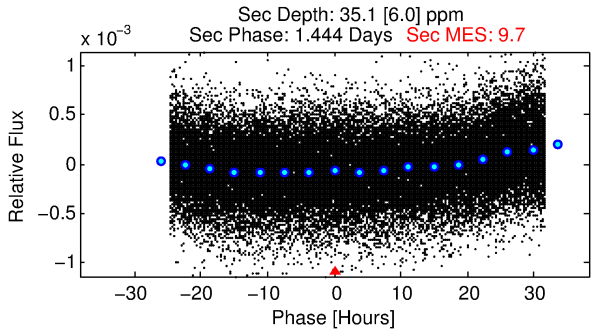
DV One-Page Summary

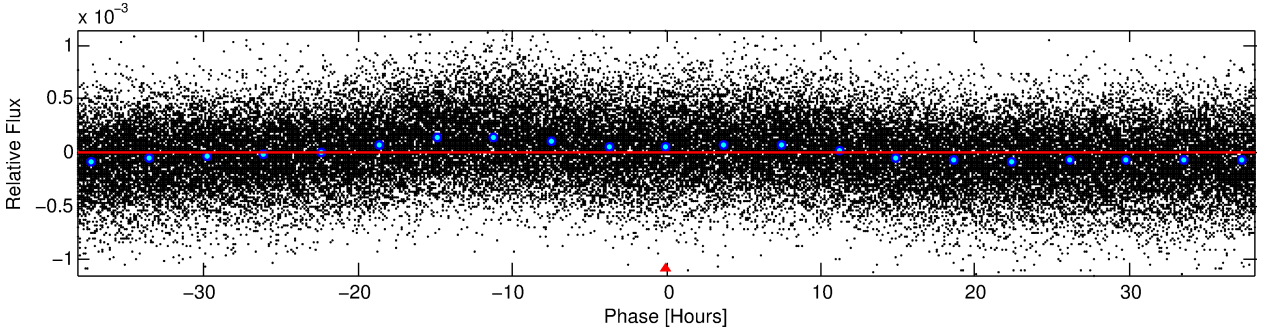
KIC: 8125652 Candidate: 1 of 6 Period: 3.182 d

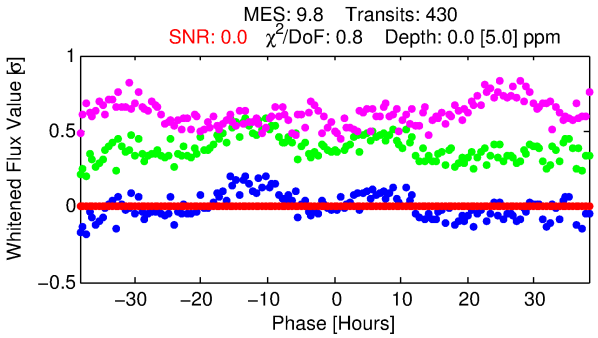
Kp: 13.75 R*: 2.45 Rs Teff: 6292.0 K Logg: 3.79 Fe/H: −0.160

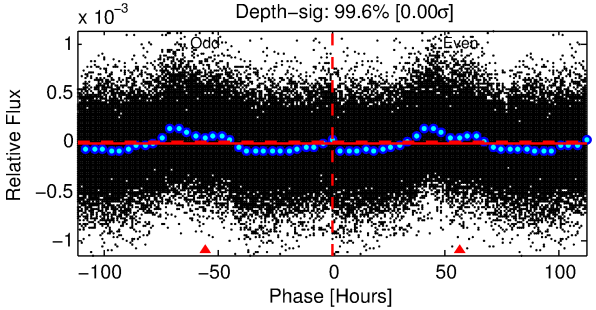


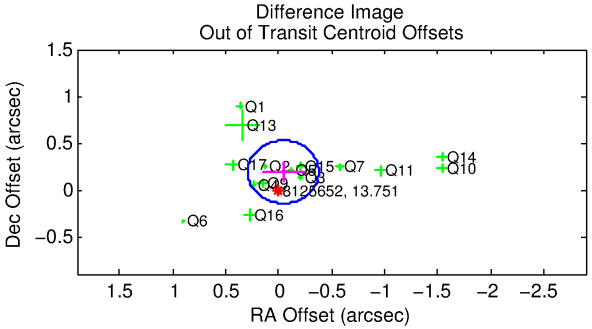












DV Fit Results:

Period = 3.18216 [38.88325] d
Epoch = 131.5049 [7249.4489] BKJD
Rp/R* = 0.0000 [0.4028]
a/R* = 1.17 [1307.76]
b = 0.82 [5041.02]

Seff = 3841.77 [62673.66]
Teq = 2008 [8188] K
Rp = 0.00 [107.68] Re
a = 0.0468 [0.3823] AU

Ag = 13856003.17 [1705604661427.20] [0.00σ]
Teffp = 189369 [5827751209] K [0.00σ]

DV Diagnostic Results:

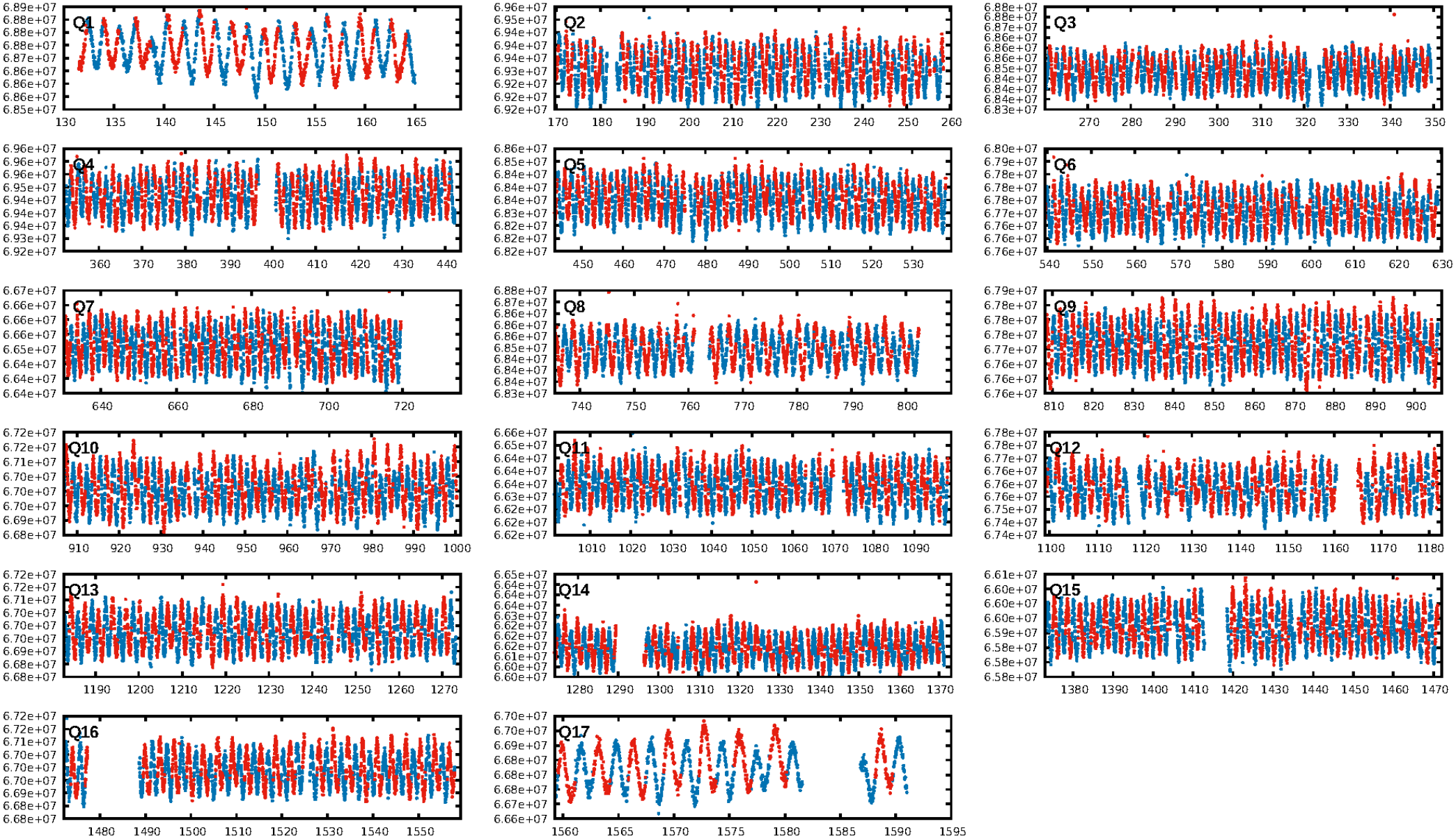
ShortPeriod−sig: N/A
LongPeriod−sig: 100.0% [21.74σ]
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: 2.76e−07
RollingBand−fgt: 1.00 [411/411]
GhostDiagnostic−chr: N/A

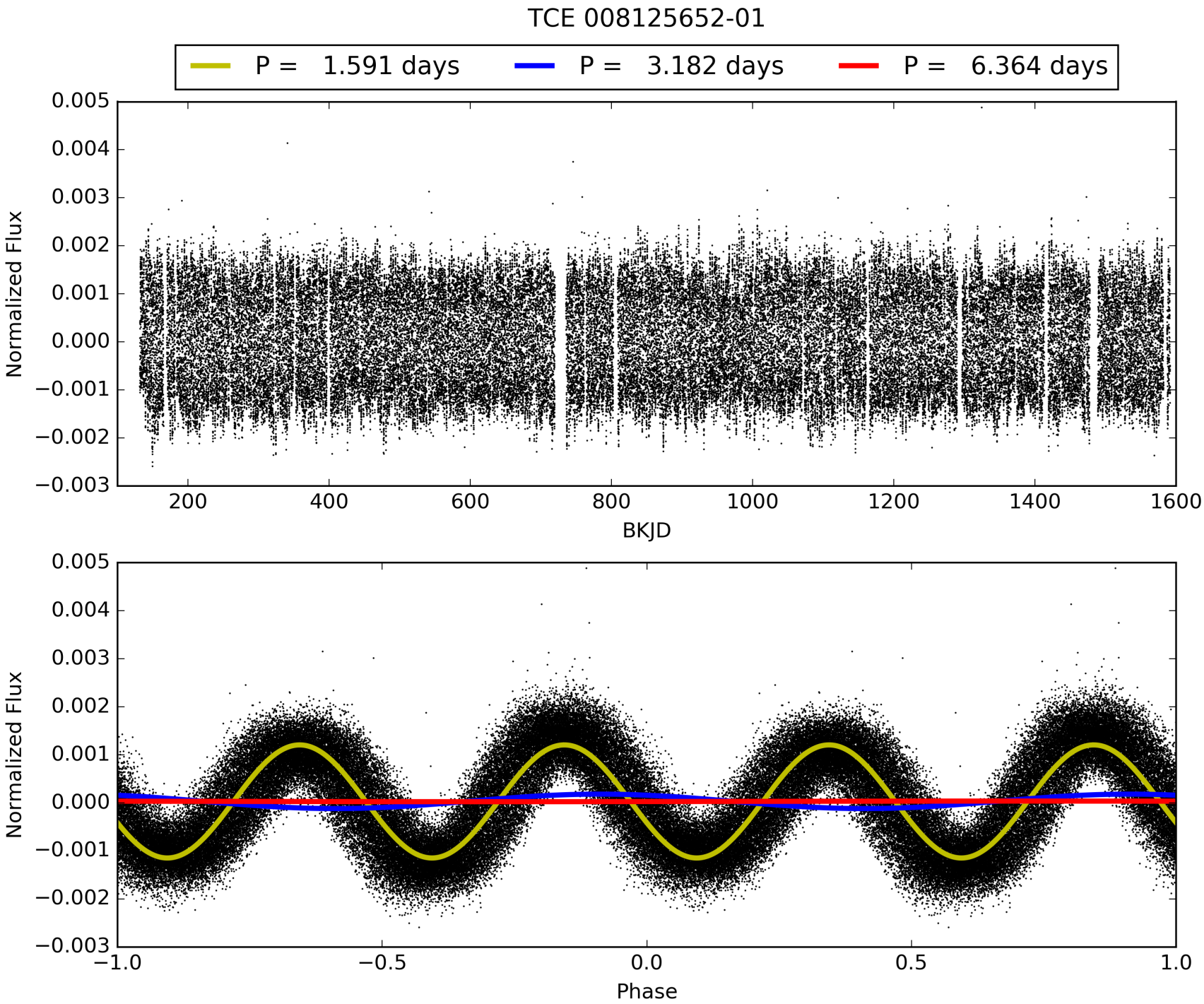
Centroid−sig: N/A
Centroid−so: N/A
OotOffset−rm: 0.195 arcsec [1.75σ]
KicOffset−rm: 0.172 arcsec [0.90σ]
OotOffset−st: 4/4/2/5 [15]
KicOffset−st: 4/4/2/5 [15]
DiffImageQuality−fgm: 0.67 [10/15]
DiffImageOverlap−fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31−Jan−2016 10:47:42 Z

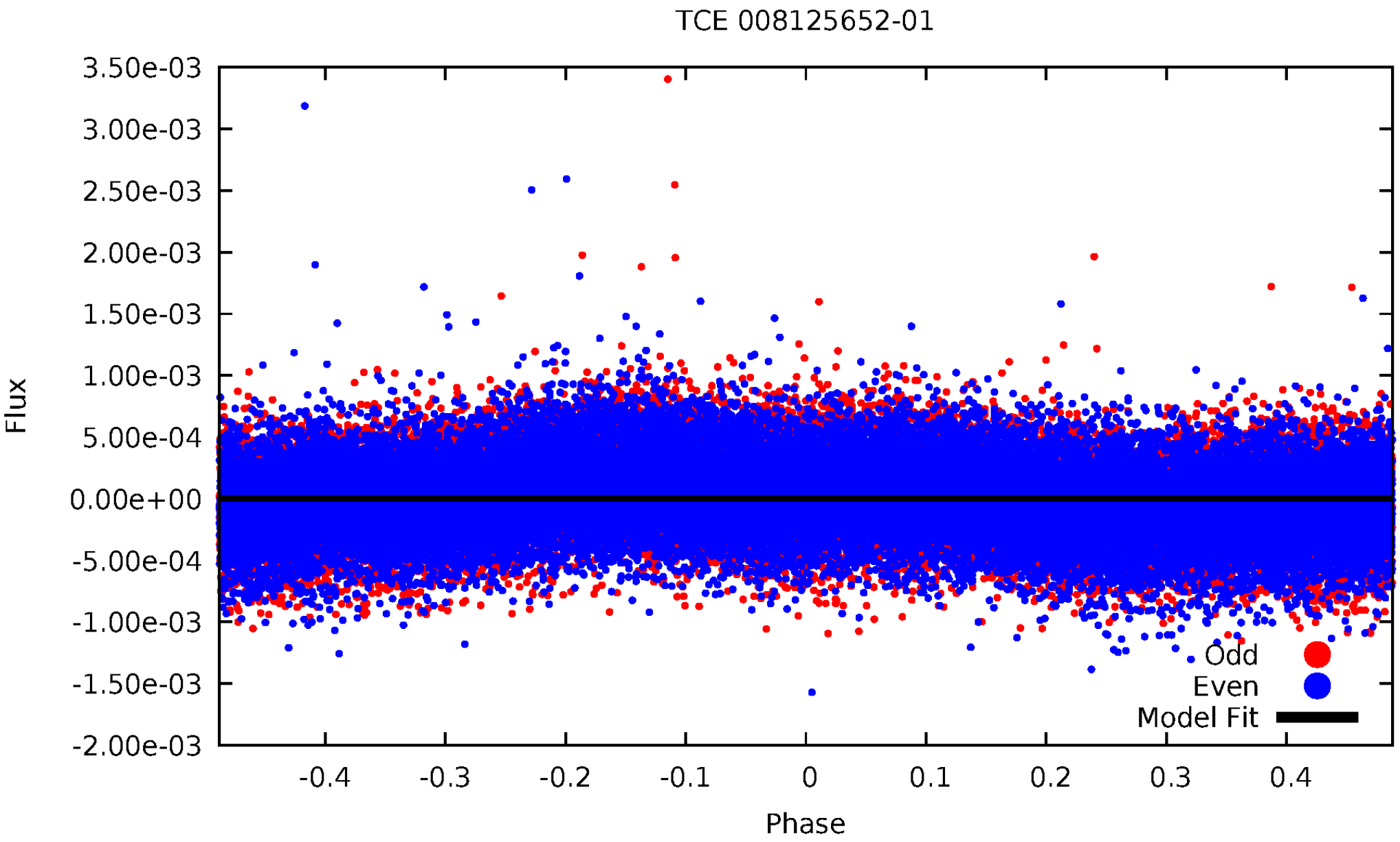
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008125652-01, PDC Light Curves




TCE 008125652-01
P = 1.591 days
P = 3.182 days
P = 6.364 days
Normalized Flux
BKJD
Phase

DV Odd/Even


TCE 008125652-01
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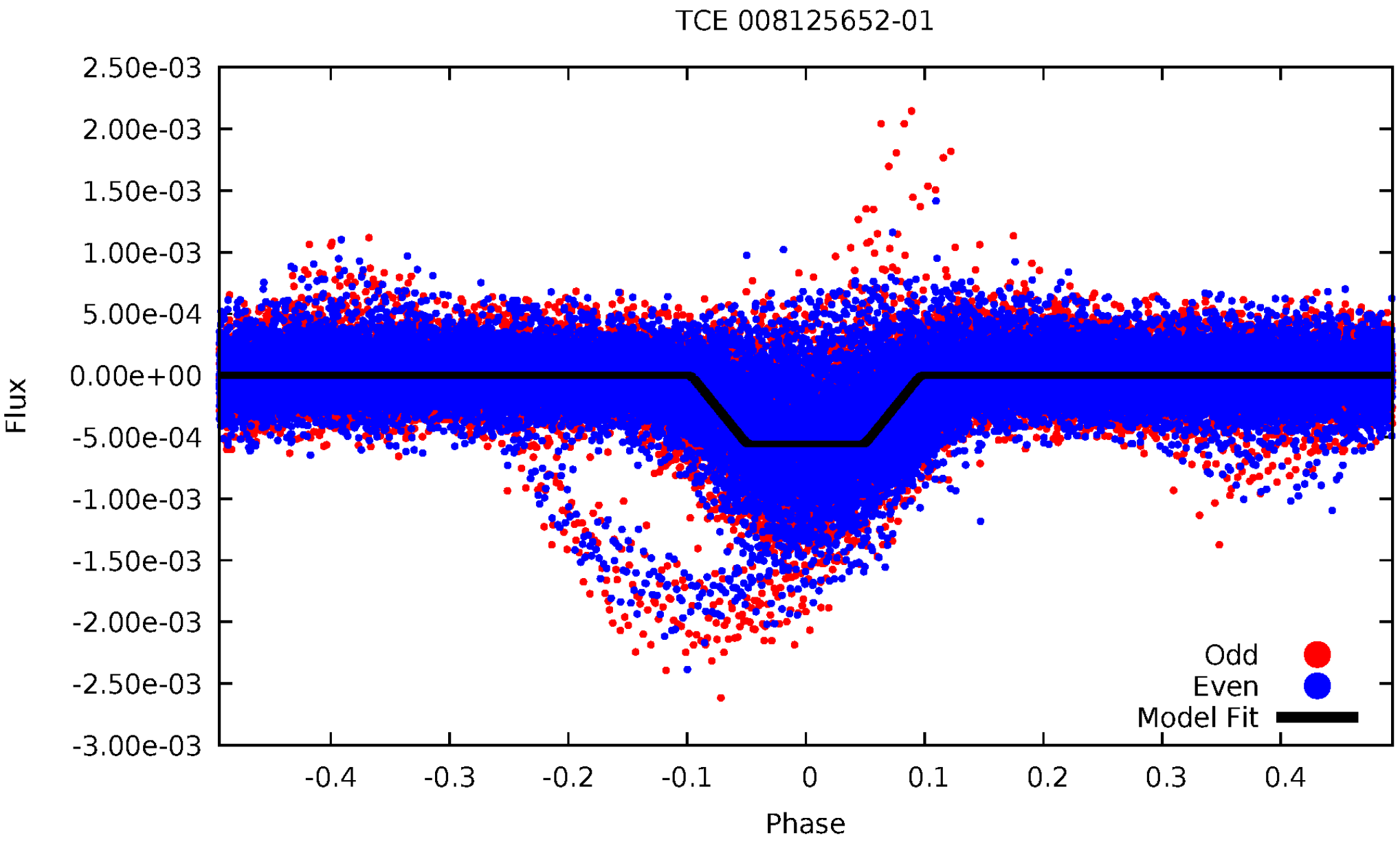
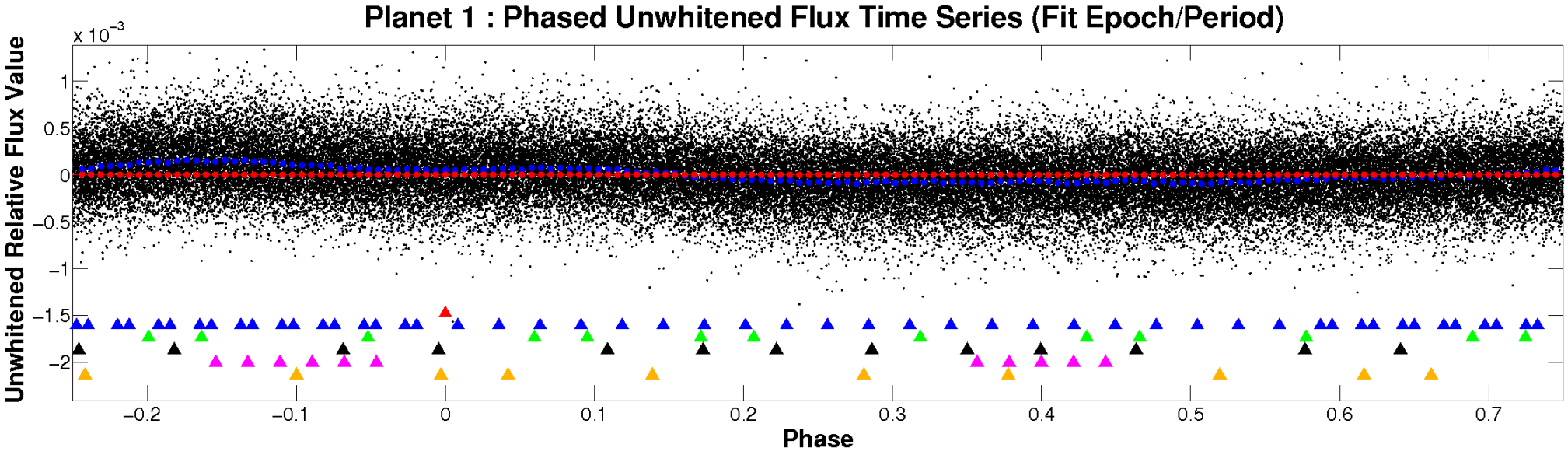
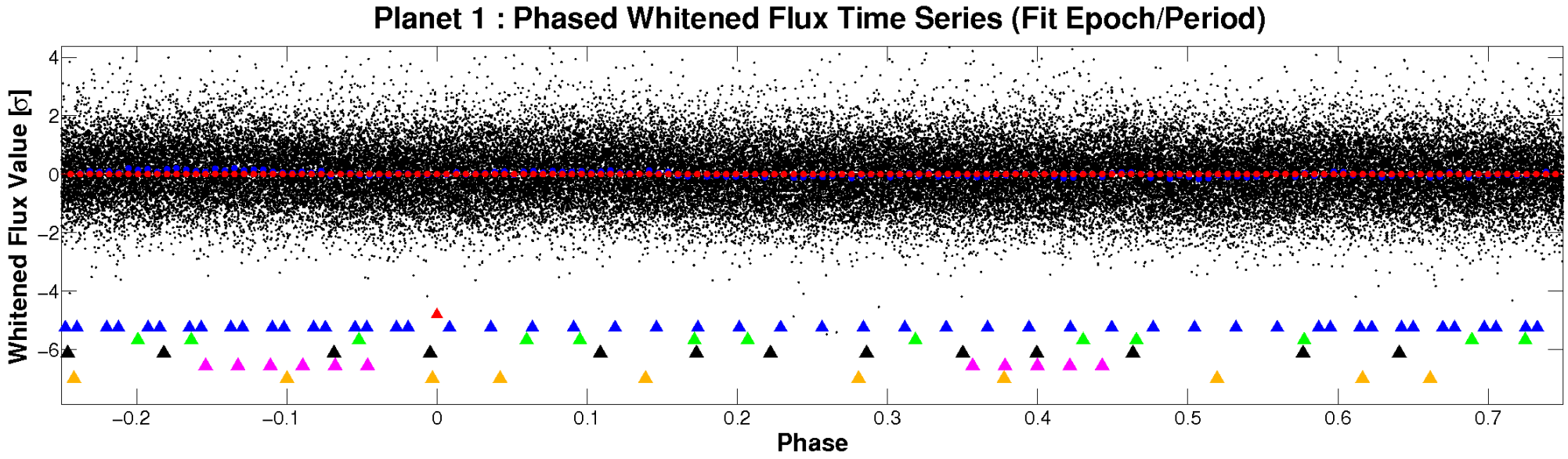
3.00e-03
2.50e-03
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.4
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
0.4
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 008125652-01
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
-2.00e-03
-2.50e-03
-3.00e-03
Flux
-0.4
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
0.4
Phase
Odd
Even
Model Fit

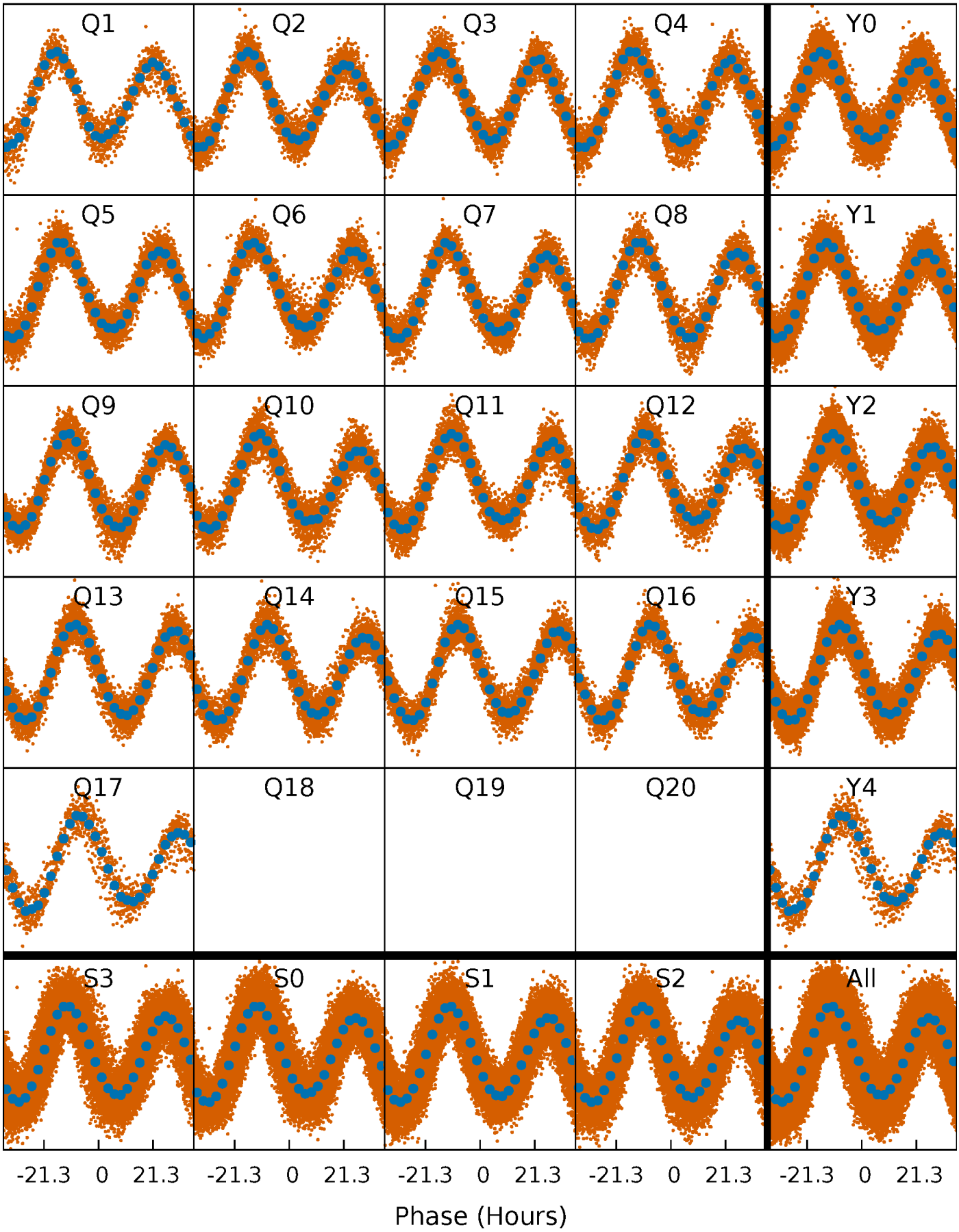
Non-Whitened Vs. Whitened Light Curve





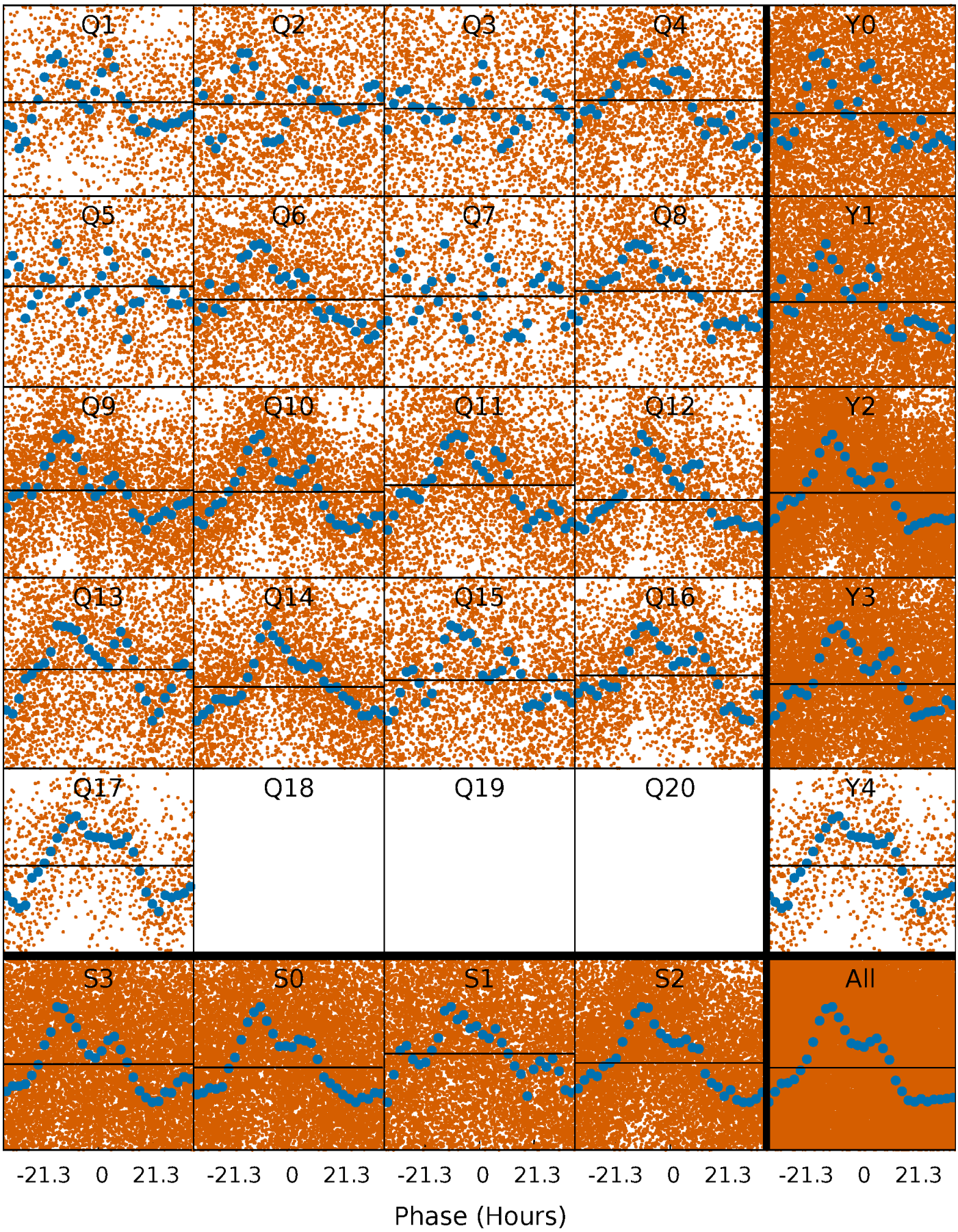
PDC Quarter-Phased Transit Curves

TCE 008125652-01 P= 3.182158 Days T_0=131.504873 (BKJD)



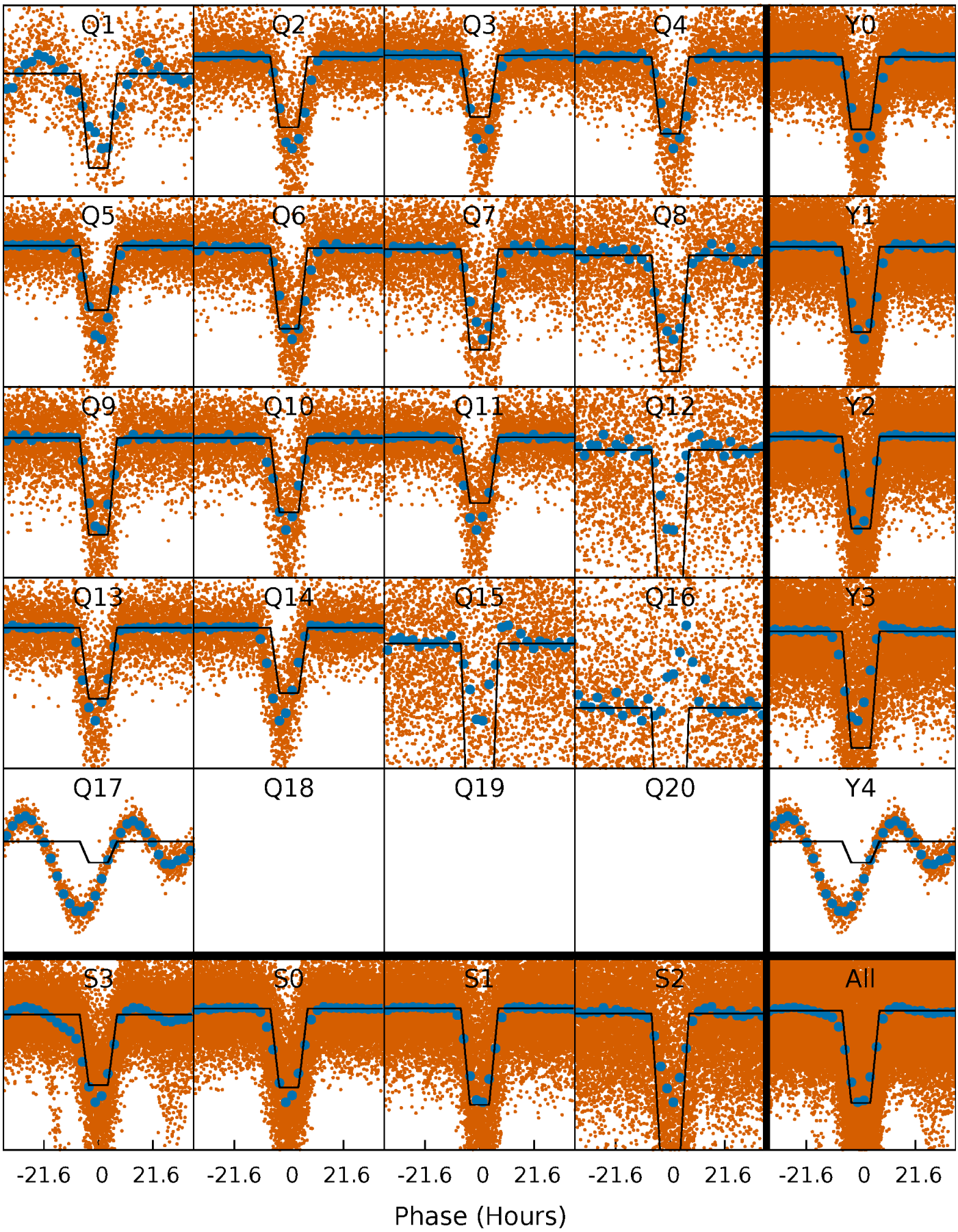
DV Quarter-Phased Transit Curves

TCE 008125652-01 P= 3.182158 Days T_0=131.504873 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

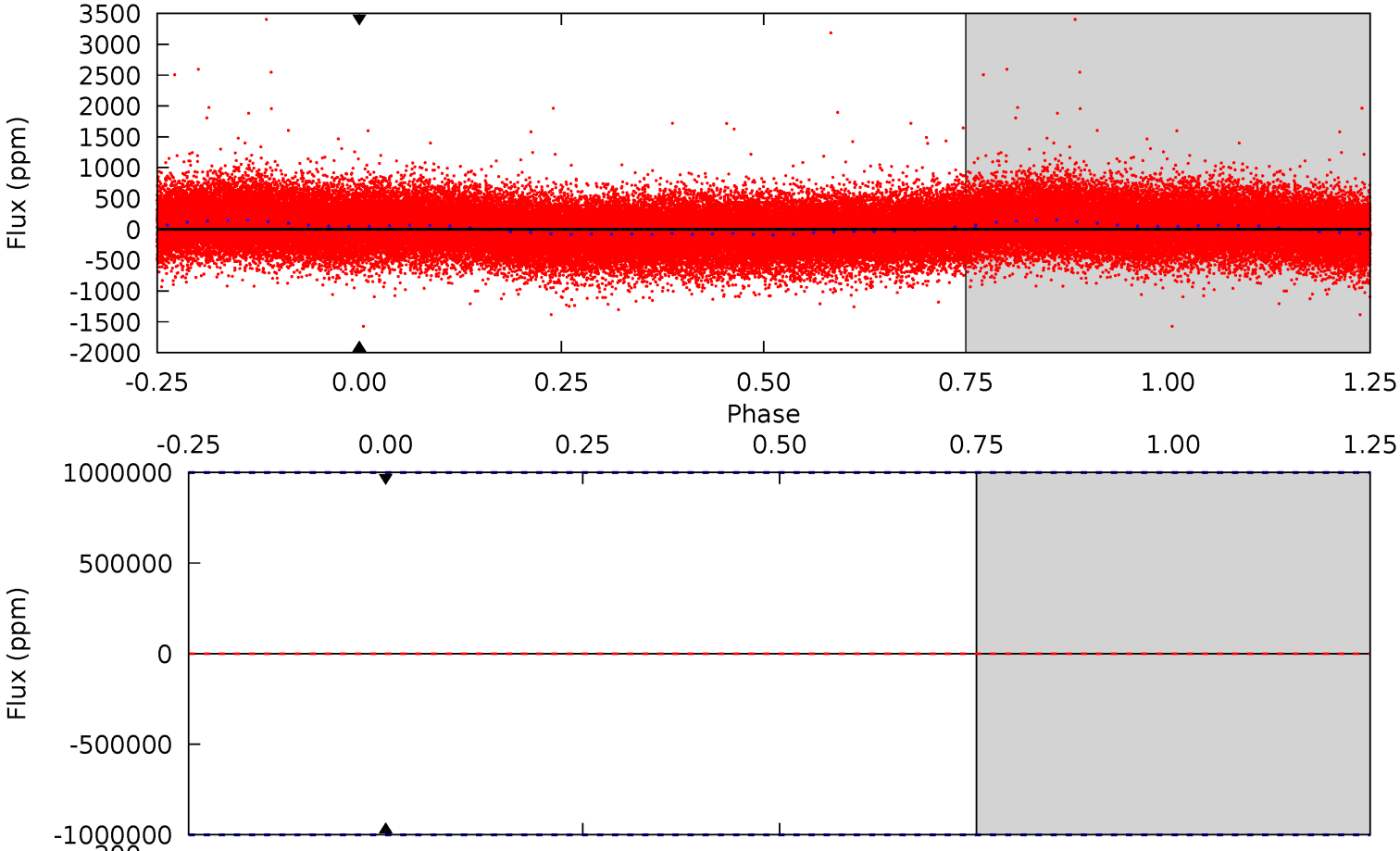
TCE 008125652-01 P= 3.183502 Days T_0=131.736846 (BKJD)

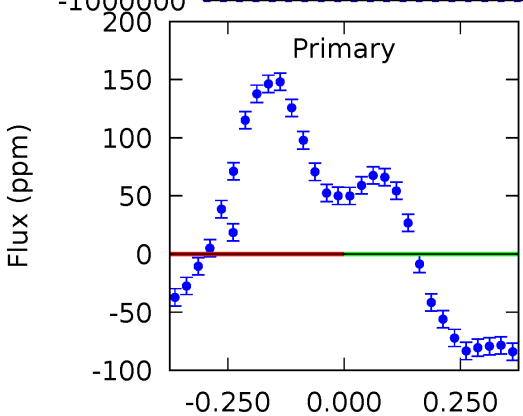


DV Model-Shift Uniqueness Test

008125652-01, P = 3.182158 Days, E = 131.504873 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0

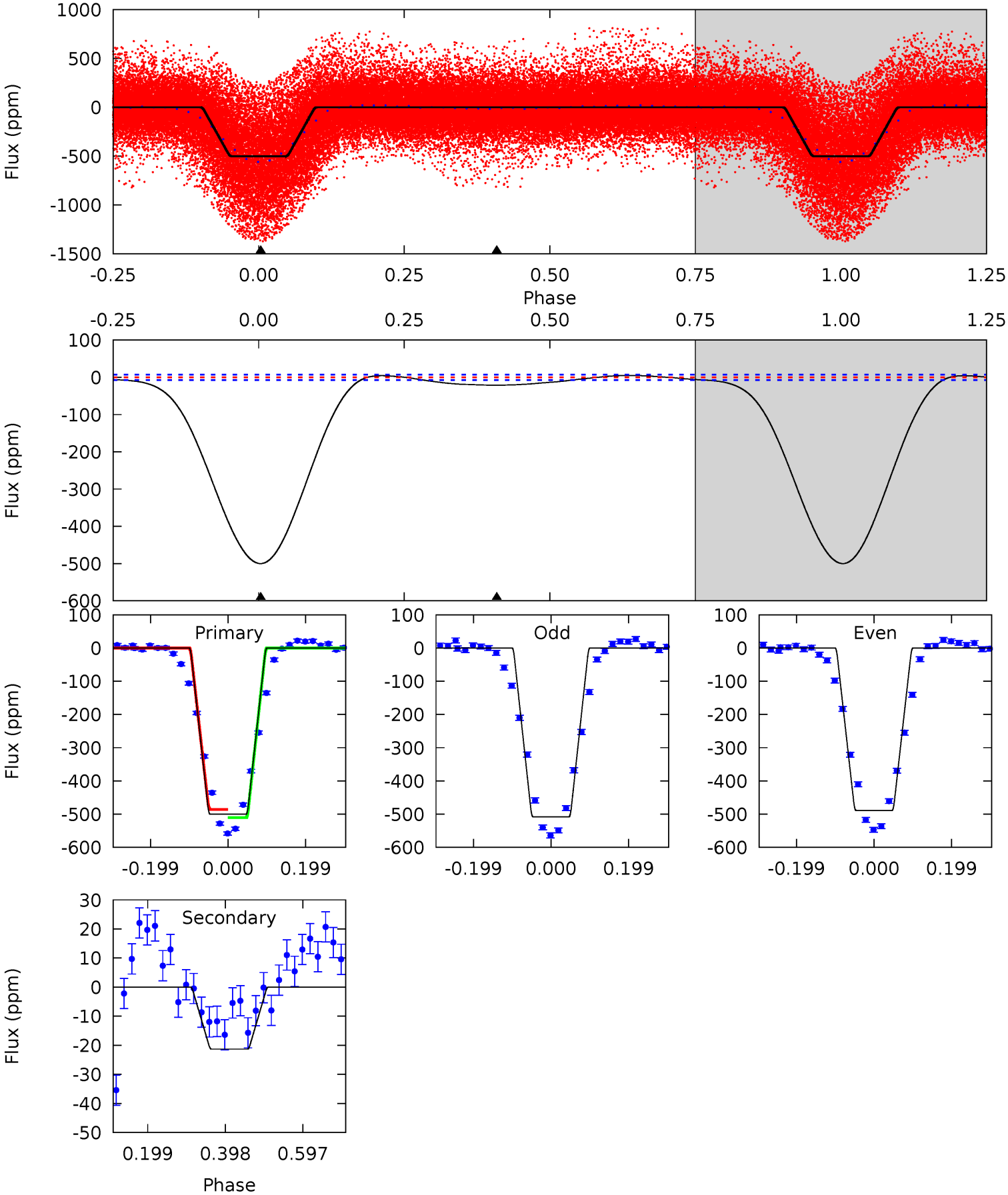




Alt Model-Shift Uniqueness Test

008125652-01, P = 3.183502 Days, E = 128.553344 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
302.5	12.9	0	0	4.42	1.28	3.42	302.5	302.5	12.9	12.9	5.80	1.04	0.01	7.46



Stellar Parameters For KIC 008125652

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6292^{+203}_{-225}	$3.791^{+0.488}_{-0.122}$	$-0.160^{+0.300}_{-0.300}$	$2.450^{+0.513}_{-1.281}$	$1.354^{+0.218}_{-0.327}$	$0.130^{+0.716}_{-0.050}$
	+3%/-4%	+13%/-3%	+188%/-188%	+21%/-52%	+16%/-24%	+552%/-38%
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 008125652-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0±1000000	$67.79^{+71.91}_{-49.15}$	1360^{+589}_{-351}	-3011^{+11442}_{-4738}	$-0.454^{+1015.377}_{-843.672}$
Alt.	-21±2	$66.18^{+78.53}_{-46.07}$	1314^{+653}_{-314}	-1902^{+4121}_{-527}	$0.089^{+1.088}_{-0.079}$

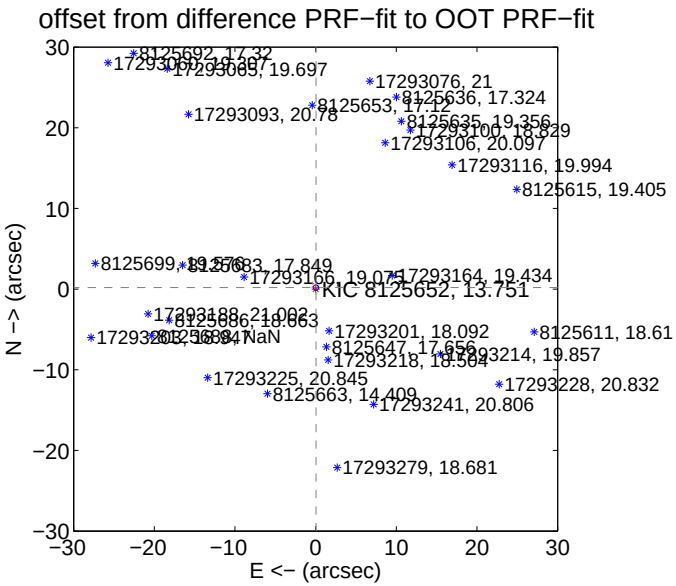
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

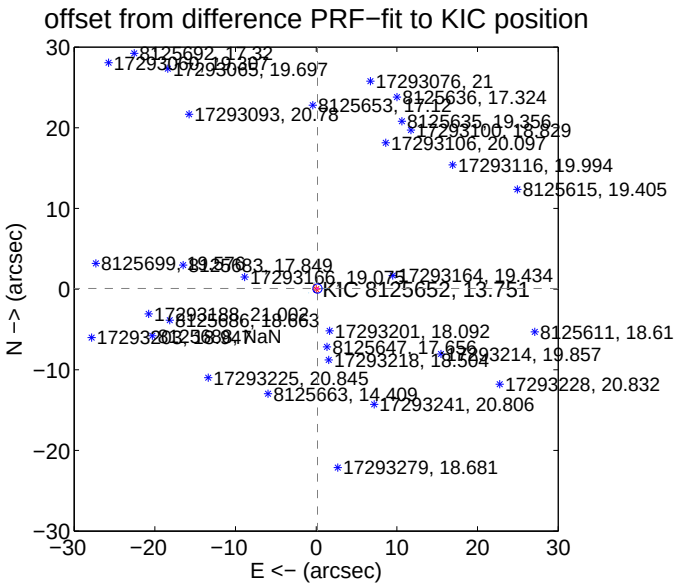
If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

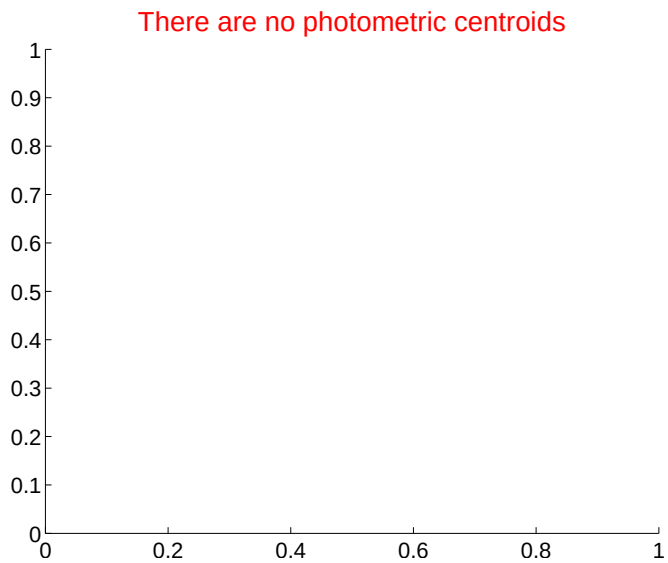
DV Centroid Data

Supplemental centroid analysis for 008125652-01. Kepler magnitude: 13.75. Transit SNR 0.00
There are 10 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.195 ± 0.112	1.75	-0.044 ± 0.193	0.190 ± 0.100
PRF-fit source offset from KIC position	0.172 ± 0.191	0.90	-0.156 ± 0.197	0.071 ± 0.107
photometric centroid source offset	—	—	—	—

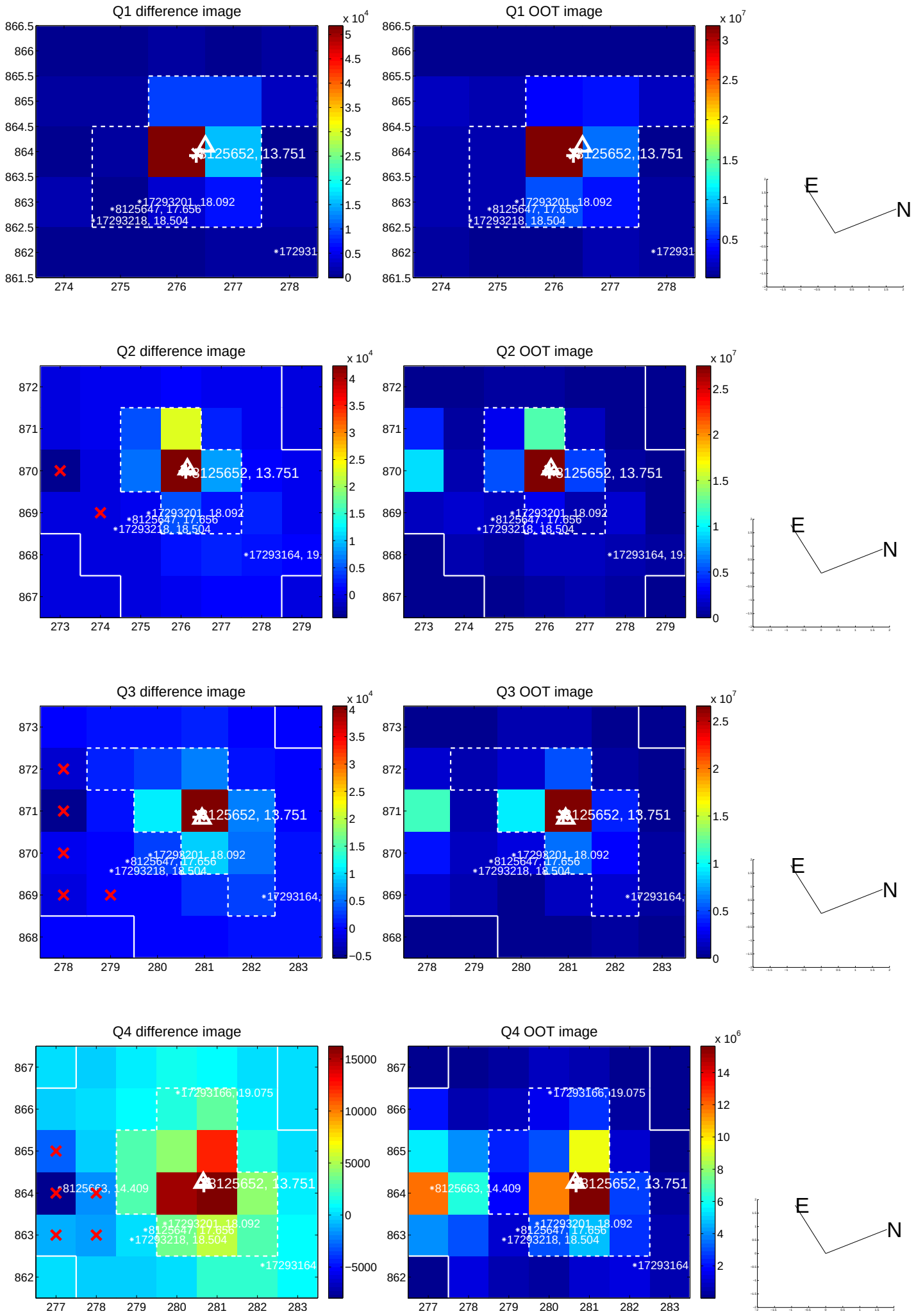




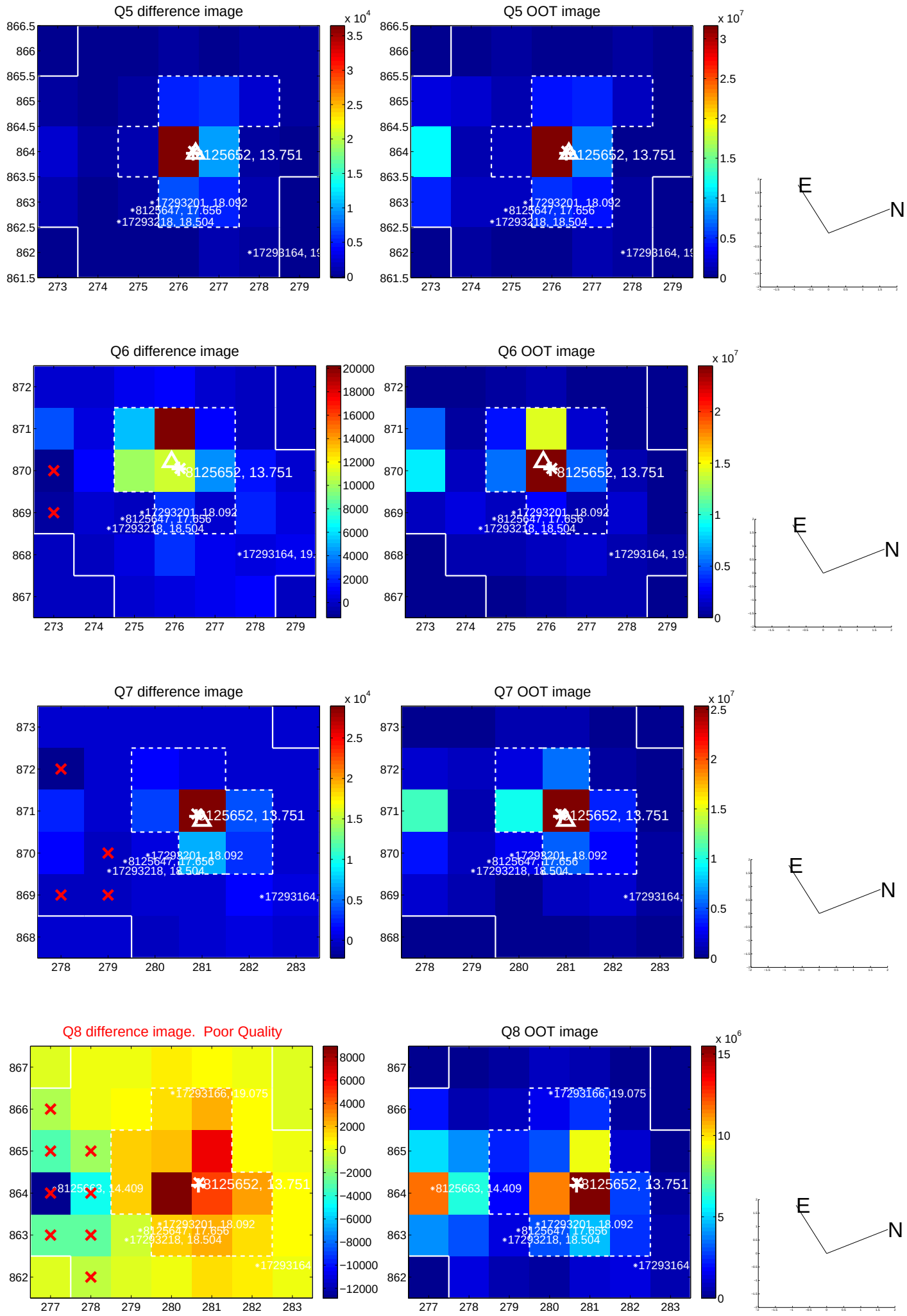


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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



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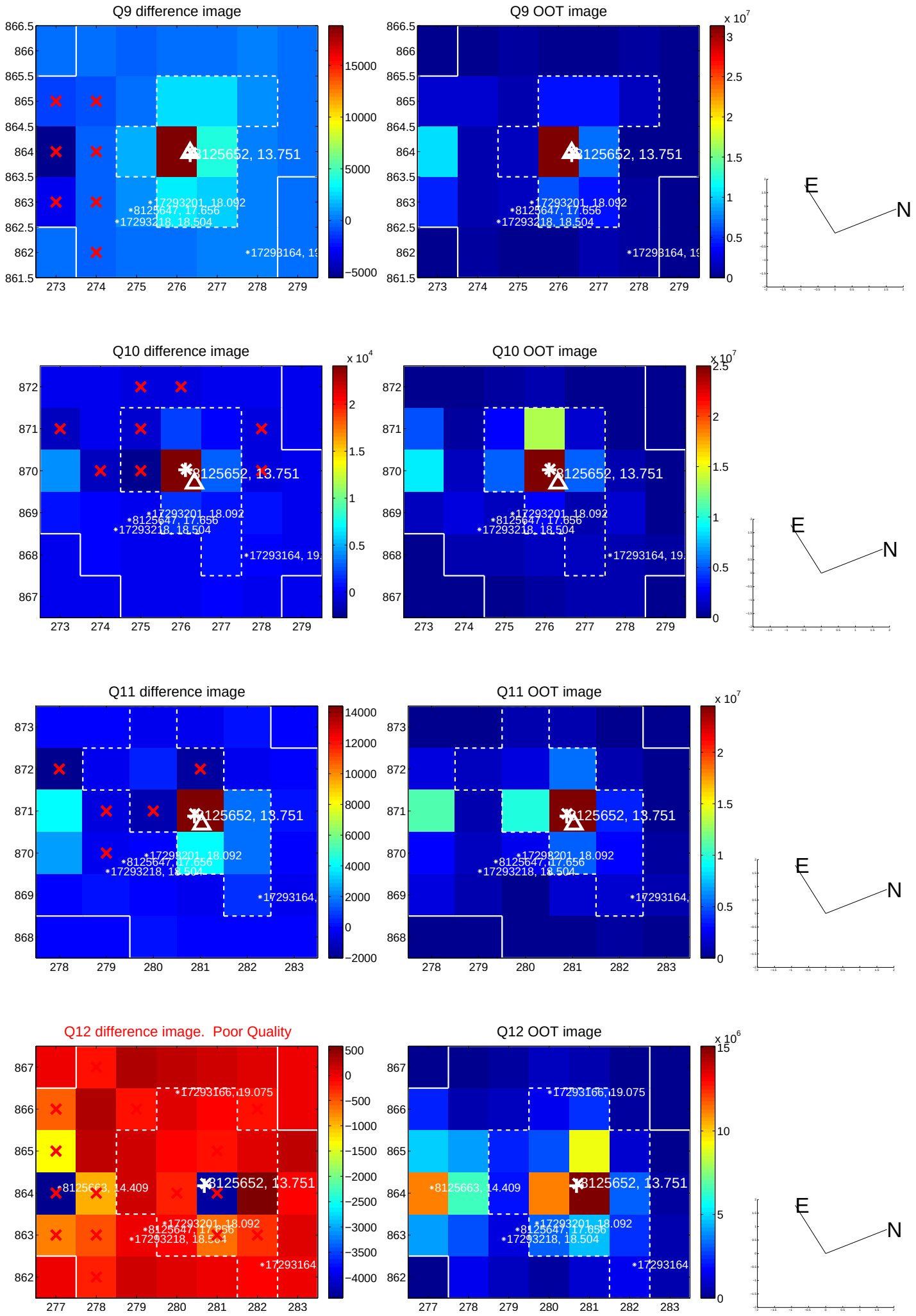

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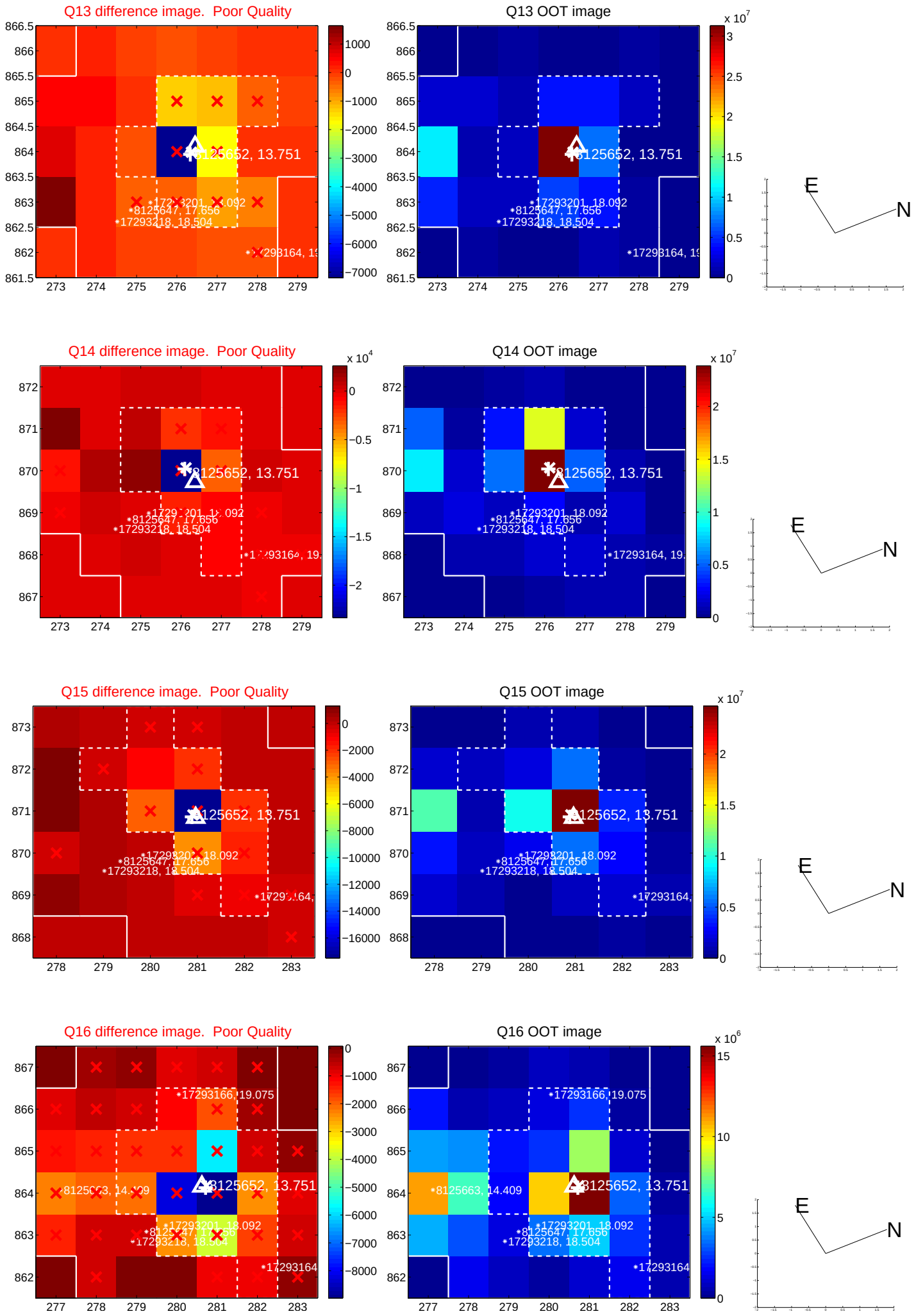
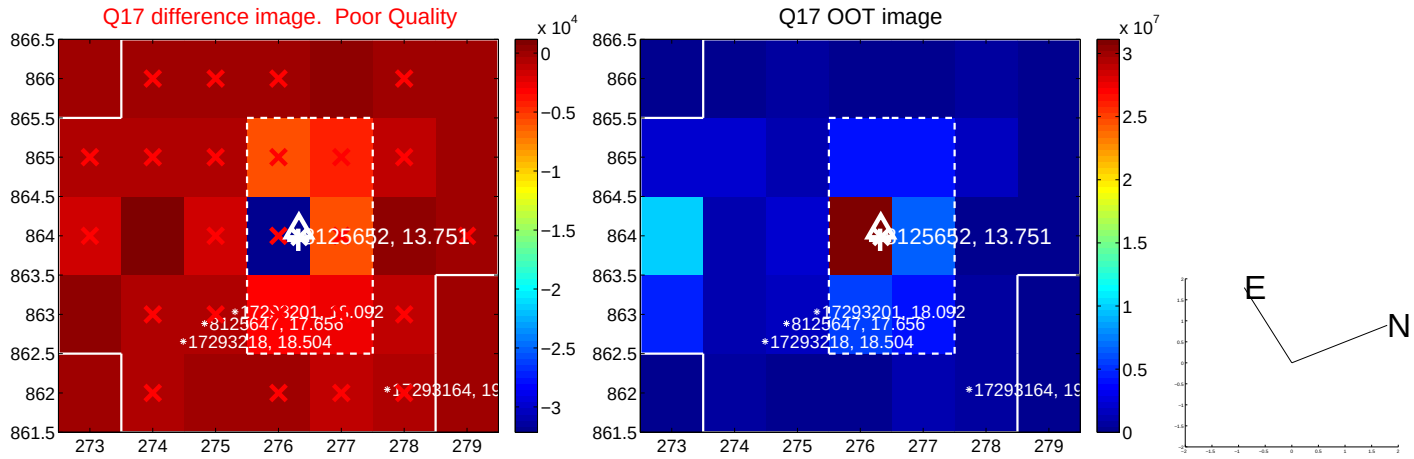
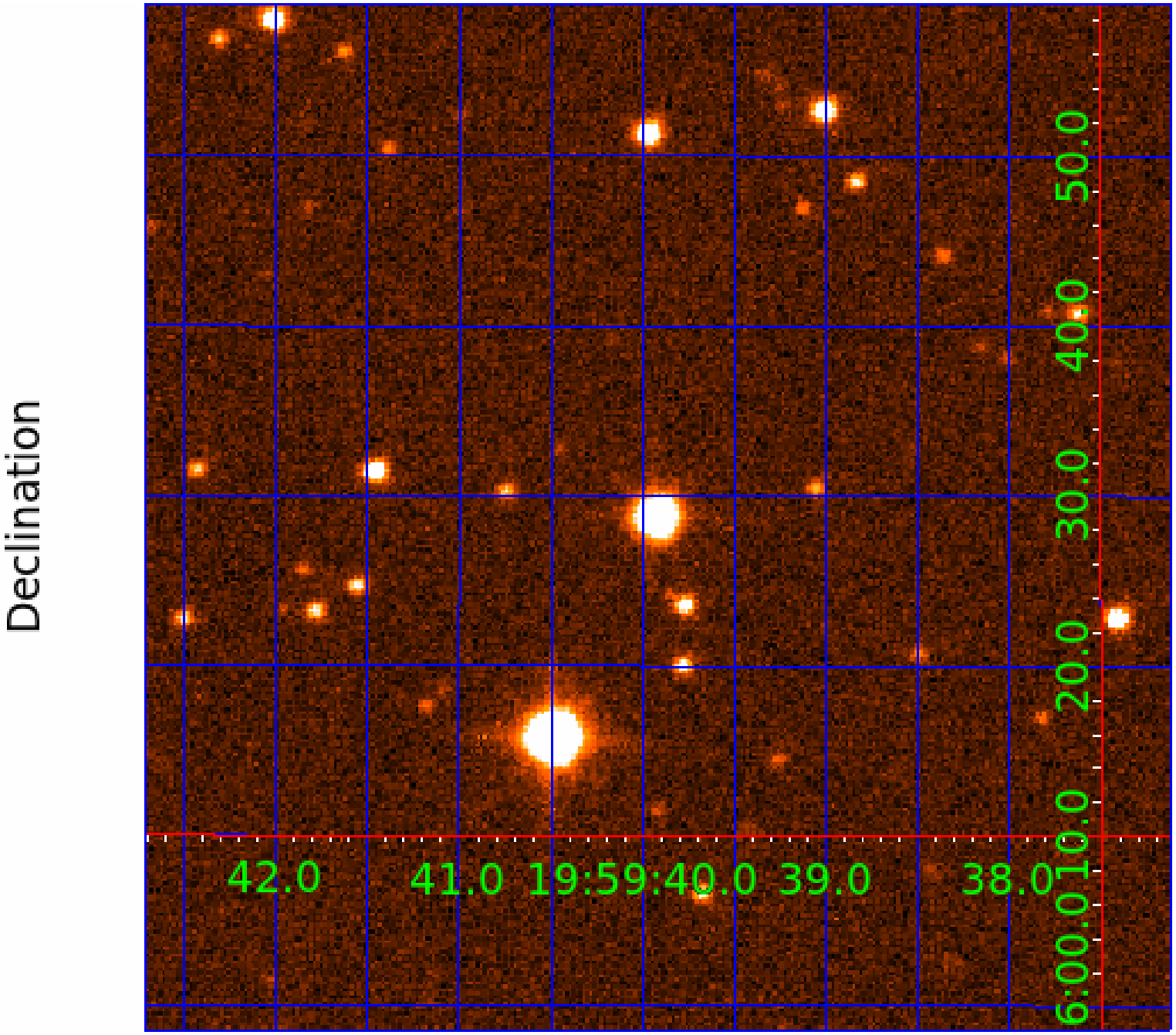


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



olded centroid time series figure for this object.

UKIRT Image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41.0
19:59:40.0
39.0
38.0
6:00:00.0
10.0
20.0
30.0
40.0
50.0

KIC 008125652

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 ($S_\oplus$)
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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008125652-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
008125652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
008125652-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

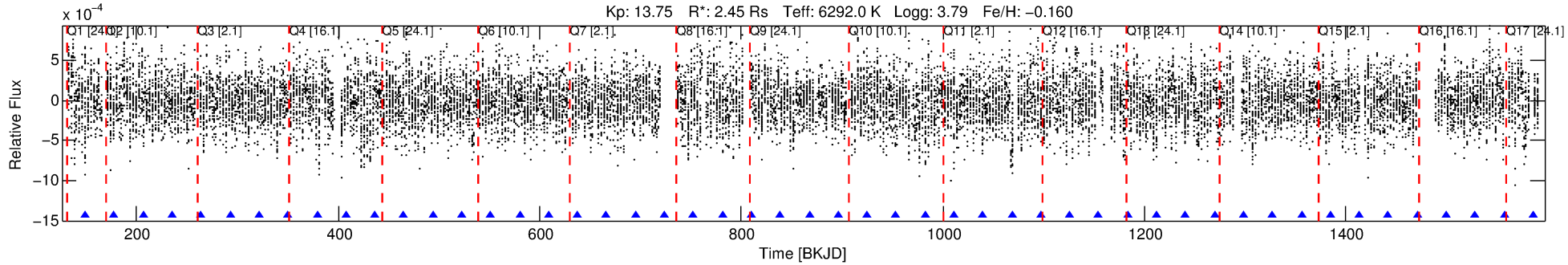
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

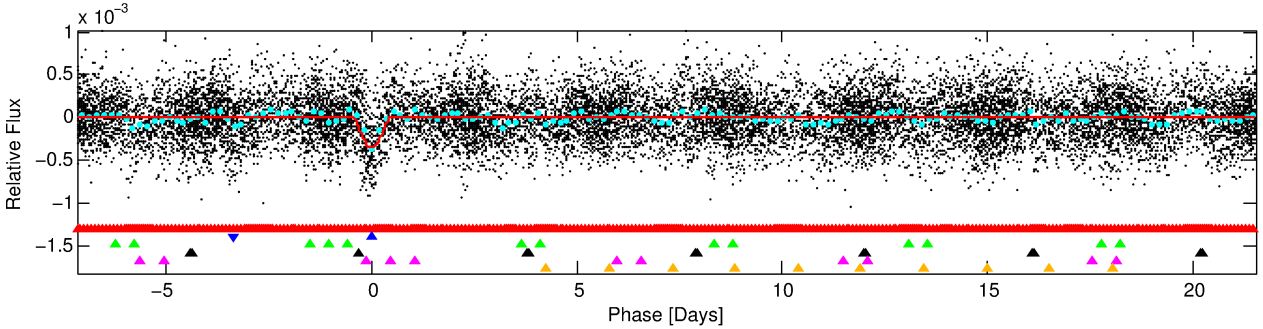
Ephemeris Match Information For 008125652-02

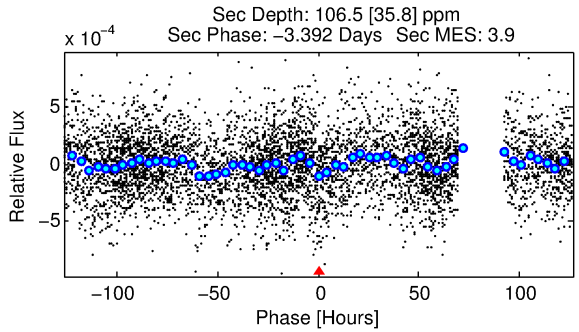
No Significant Match Found

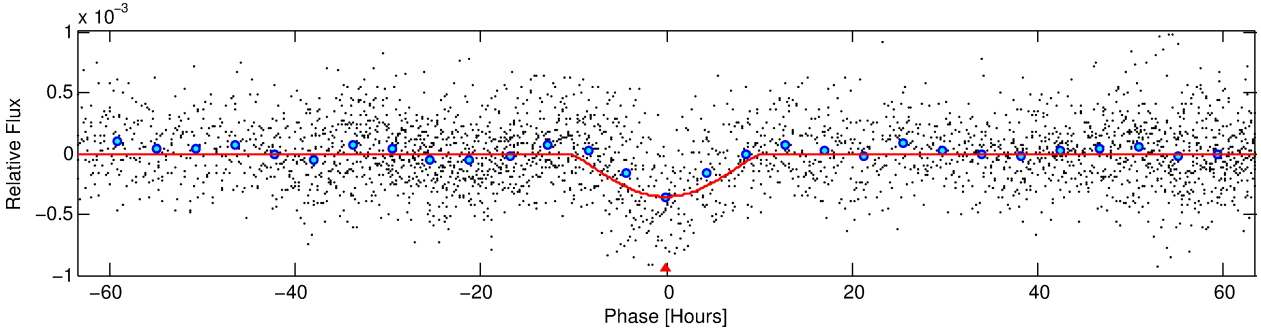
DV One-Page Summary

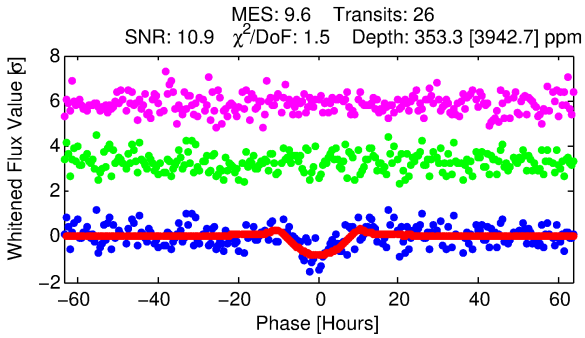
KIC: 8125652 Candidate: 2 of 6 Period: 28.727 d

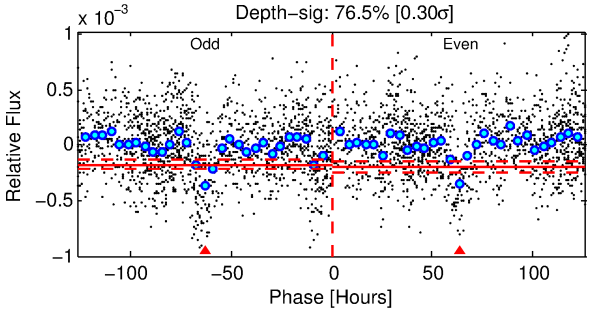


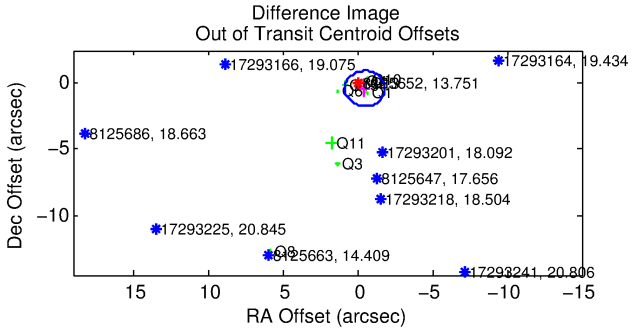












DV Fit Results:

Period = 28.72712 [0.00161] d
Epoch = 149.3089 [0.0472] BKJD
Rp/R* = 0.0337 [0.0623]
a/R* = 2.90 [1.16]
b = 1.00 [0.17]

Seff = 204.38 [171.38]
Teq = 964 [202] K
Rp = 9.02 [17.30] Re
a = 0.2031 [0.1039] AU

Ag = 29.70 [112.81] [0.25σ]
Teffp = 3480 [3228] K [0.78σ]

DV Diagnostic Results:

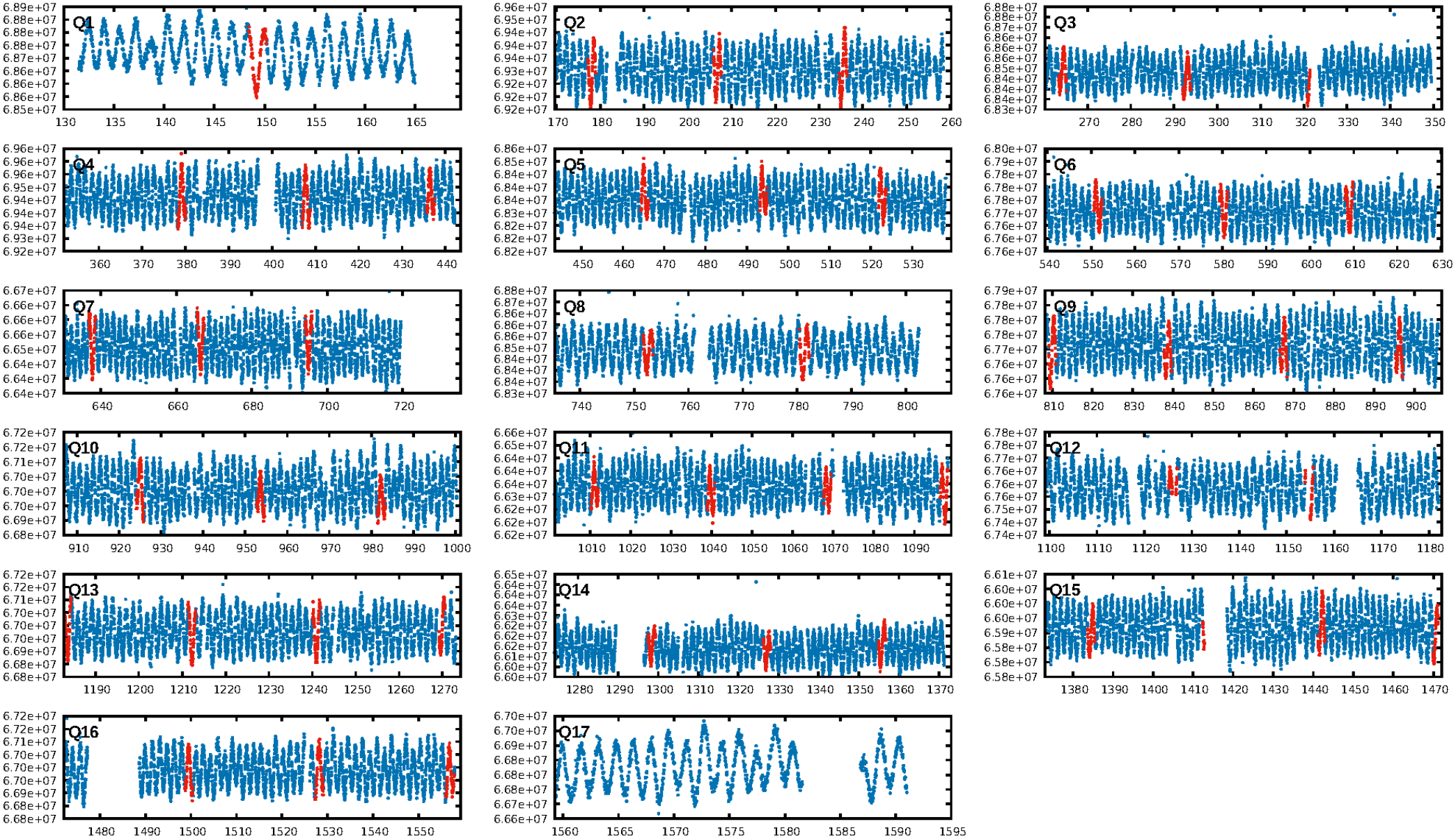
ShortPeriod−sig: 100.0% [21.74σ]
LongPeriod−sig: 100.0% [90.99σ]
ModelChiSquare2−sig: 0.0%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: 3.58e−08
RollingBand−fgt: 1.00 [25/25]
GhostDiagnostic−chr: 188.8

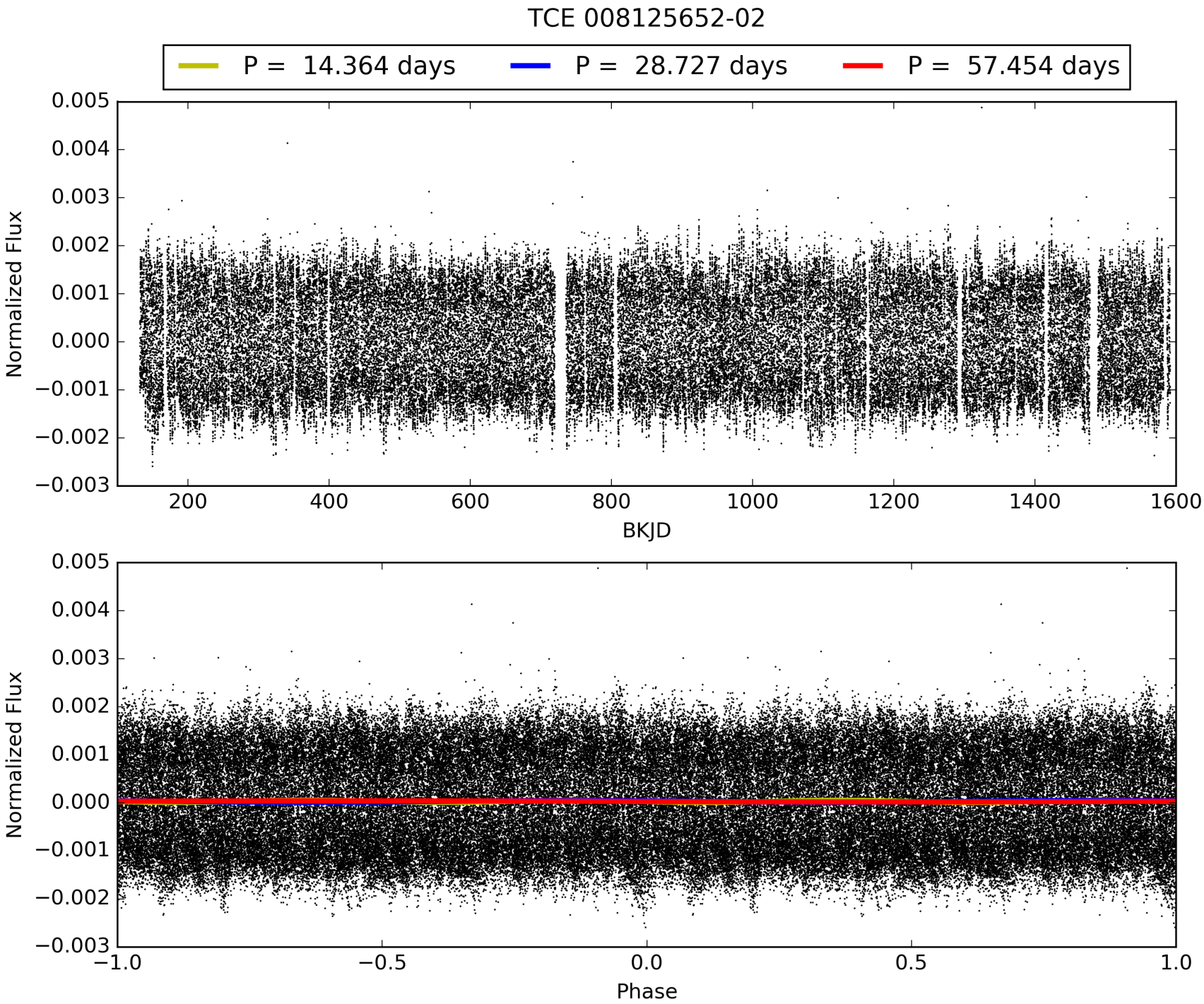
Centroid−sig: 4.3%
Centroid−so: 0.437 arcsec [0.63σ]
OotOffset−rm: 0.613 arcsec [1.37σ]
KicOffset−rm: 0.753 arcsec [1.64σ]
OotOffset−st: 2/3/2/2 [9]
KicOffset−st: 2/3/2/2 [9]
DiffImageQuality−fgm: 0.44 [4/9]
DiffImageOverlap−fno: 0.00 [0/14]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31−Jan−2016 10:47:54 Z

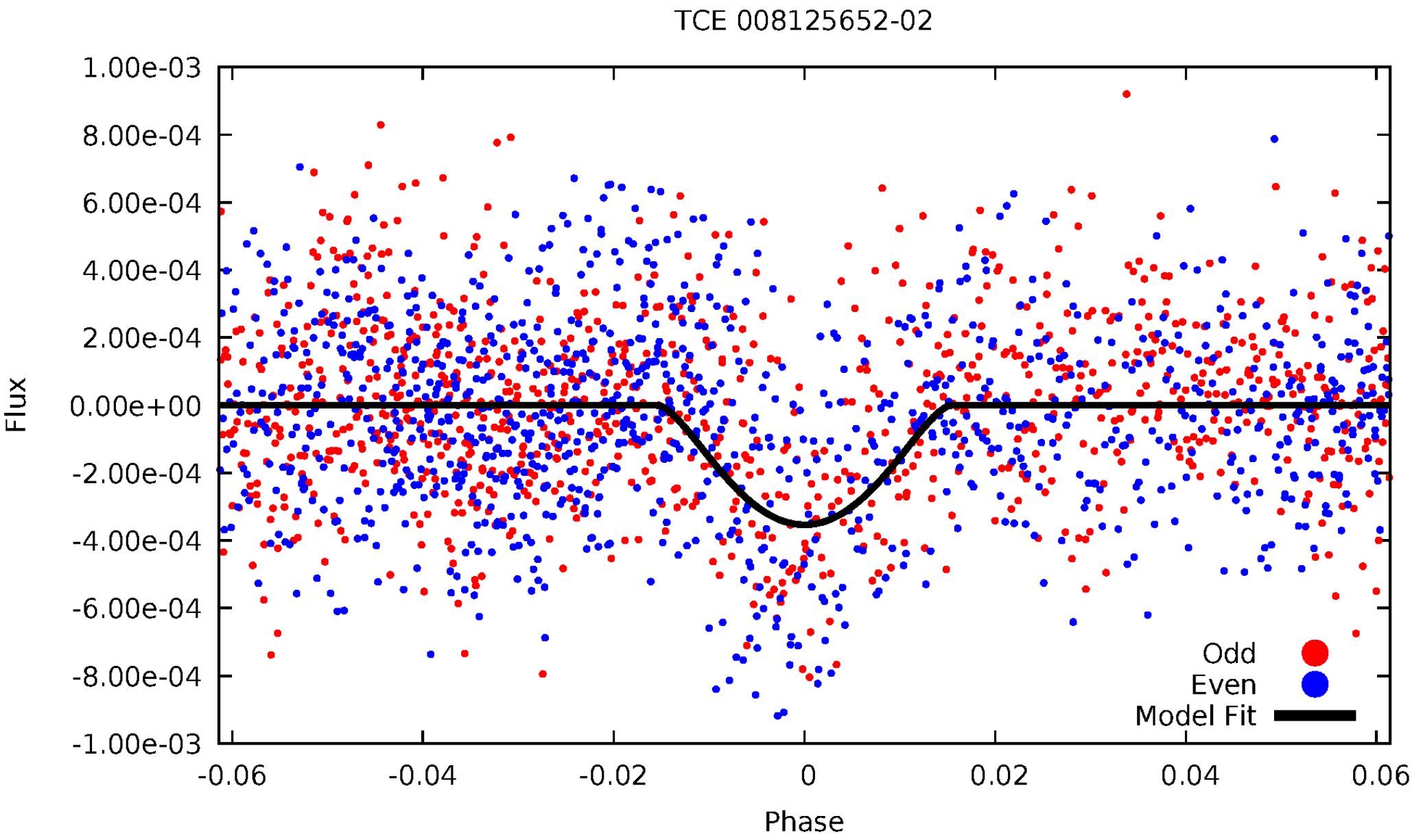
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008125652-02, PDC Light Curves

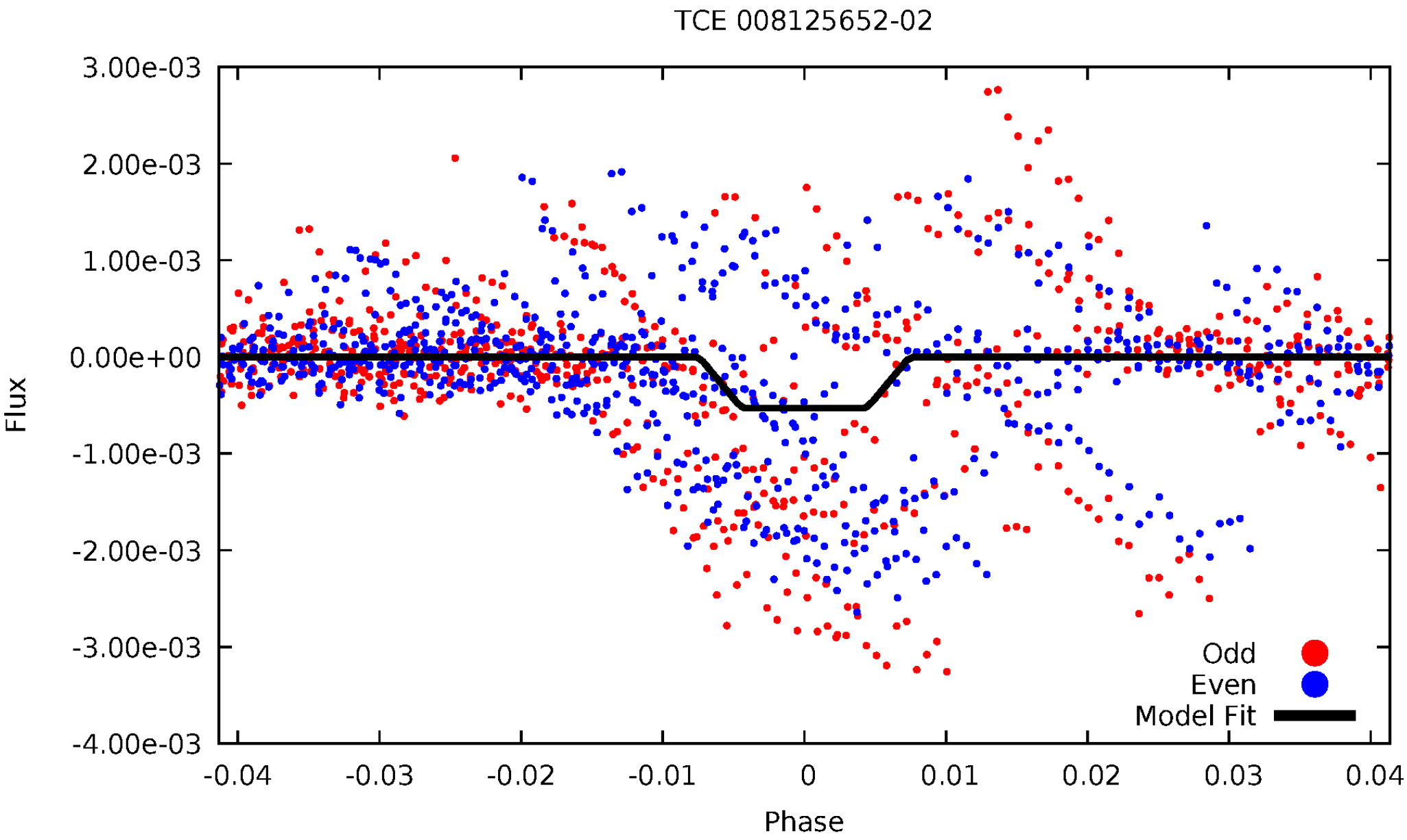



TCE 008125652-02
P = 14.364 days
P = 28.727 days
P = 57.454 days
Normalized Flux
BKJD
Normalized Flux
Phase

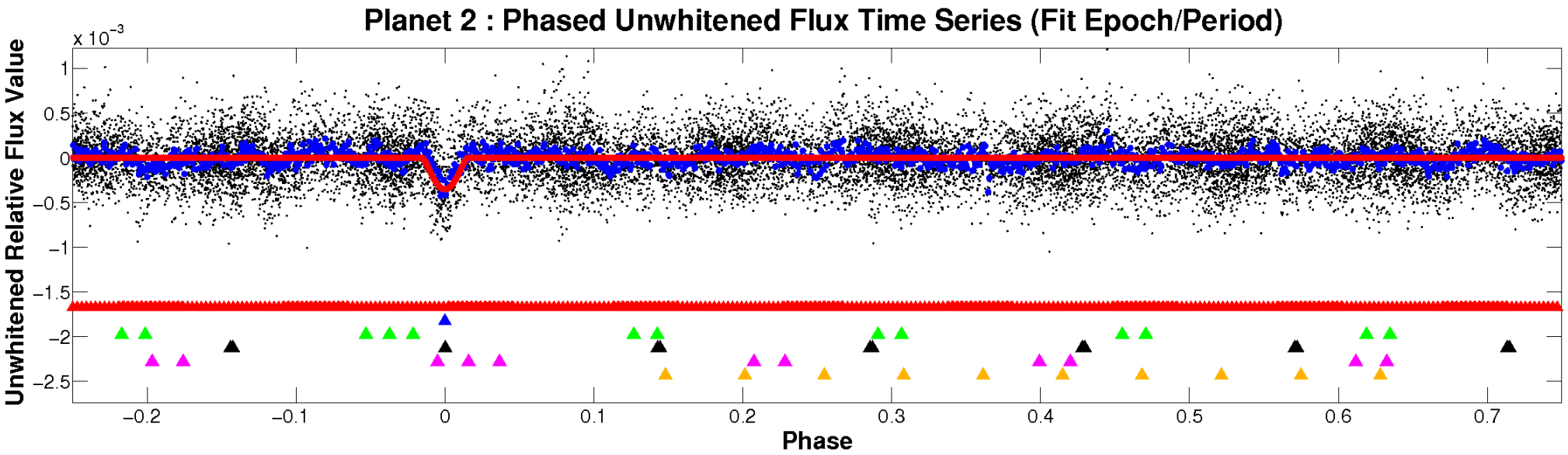
DV Odd/Even

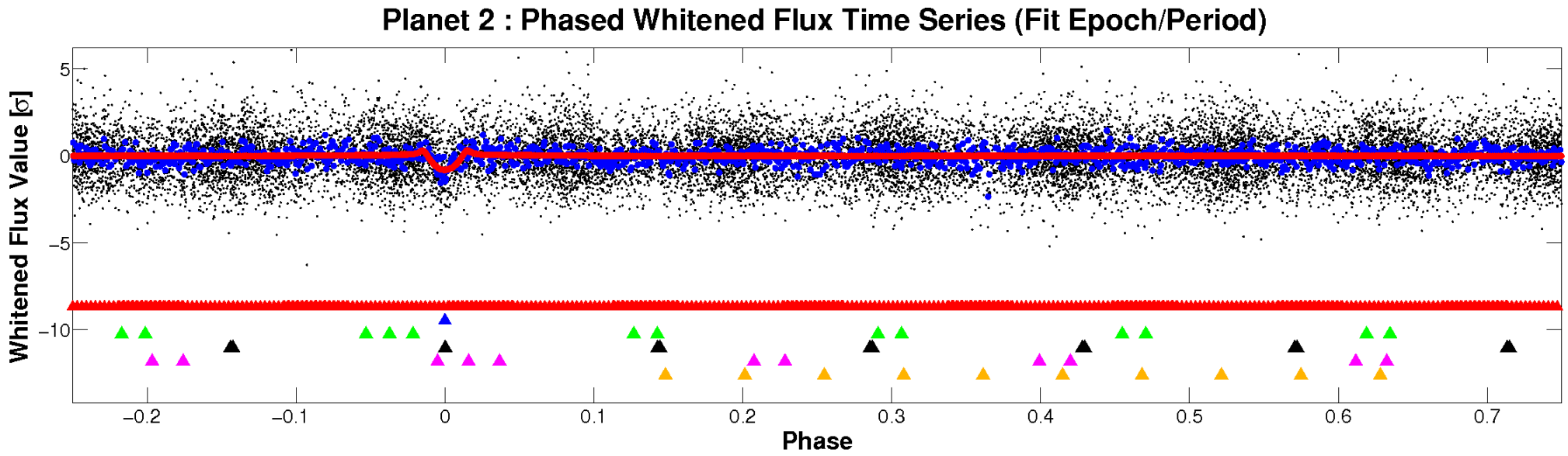

TCE 008125652-02
1.00e-03
8.00e-04
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
-1.00e-03
Flux
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 008125652-02
3.00e-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
Flux
-0.04
-0.03
-0.02
-0.01
0
0.01
0.02
0.03
0.04
Phase
Odd
Even
Model Fit

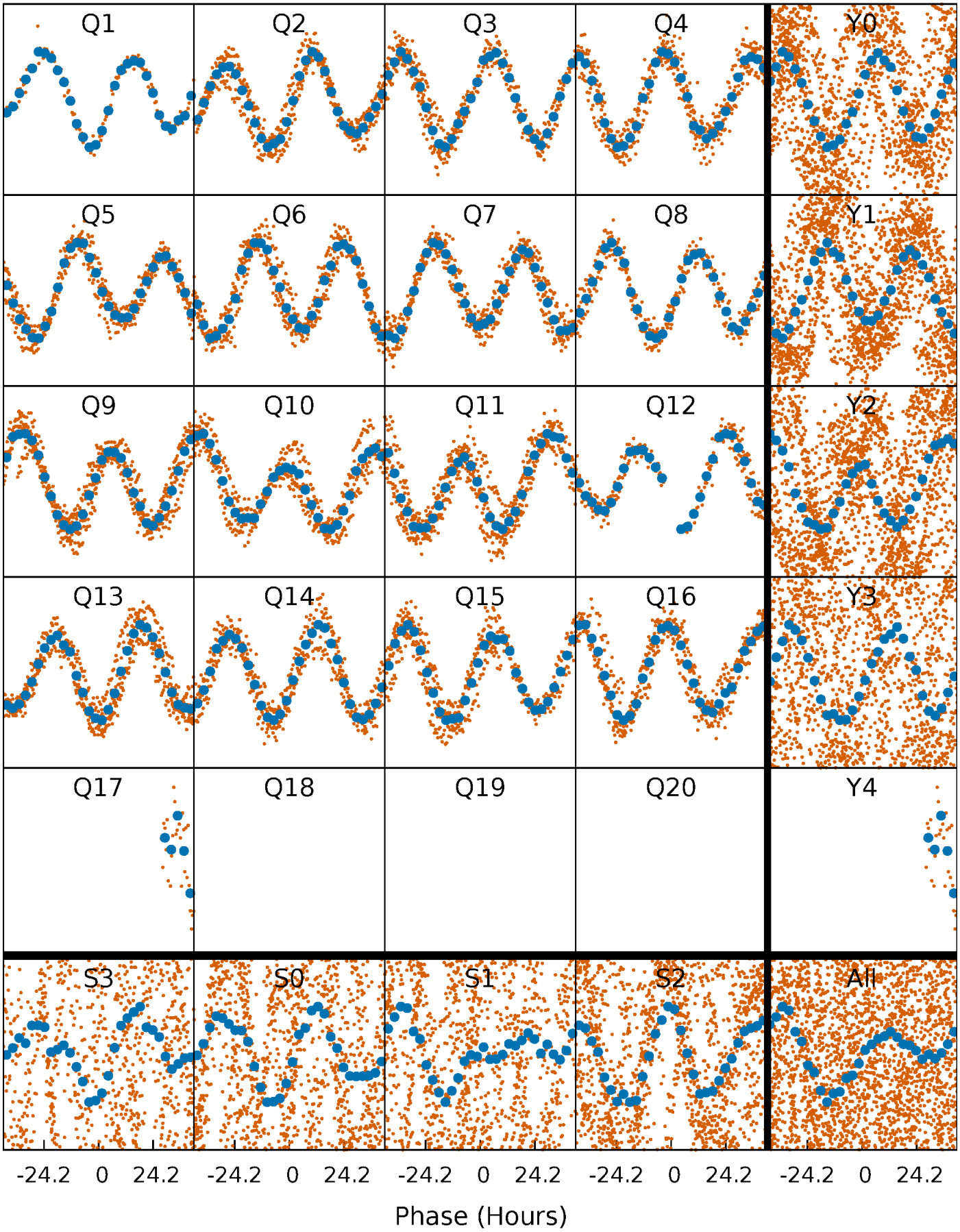
Non-Whitened Vs. Whitened Light Curve





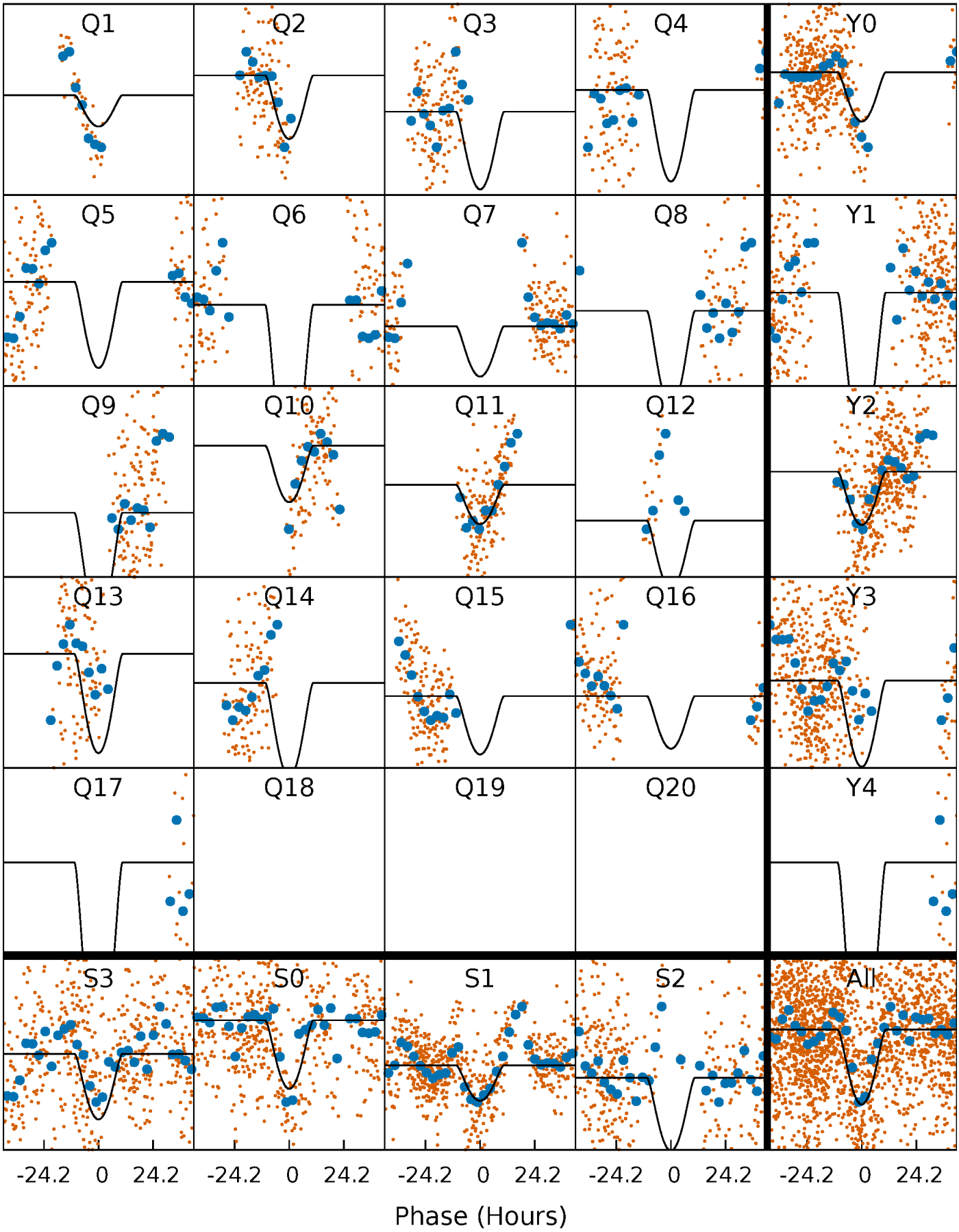
PDC Quarter-Phased Transit Curves

TCE 008125652-02 P= 28.727124 Days T_0=149.308878 (BKJD)



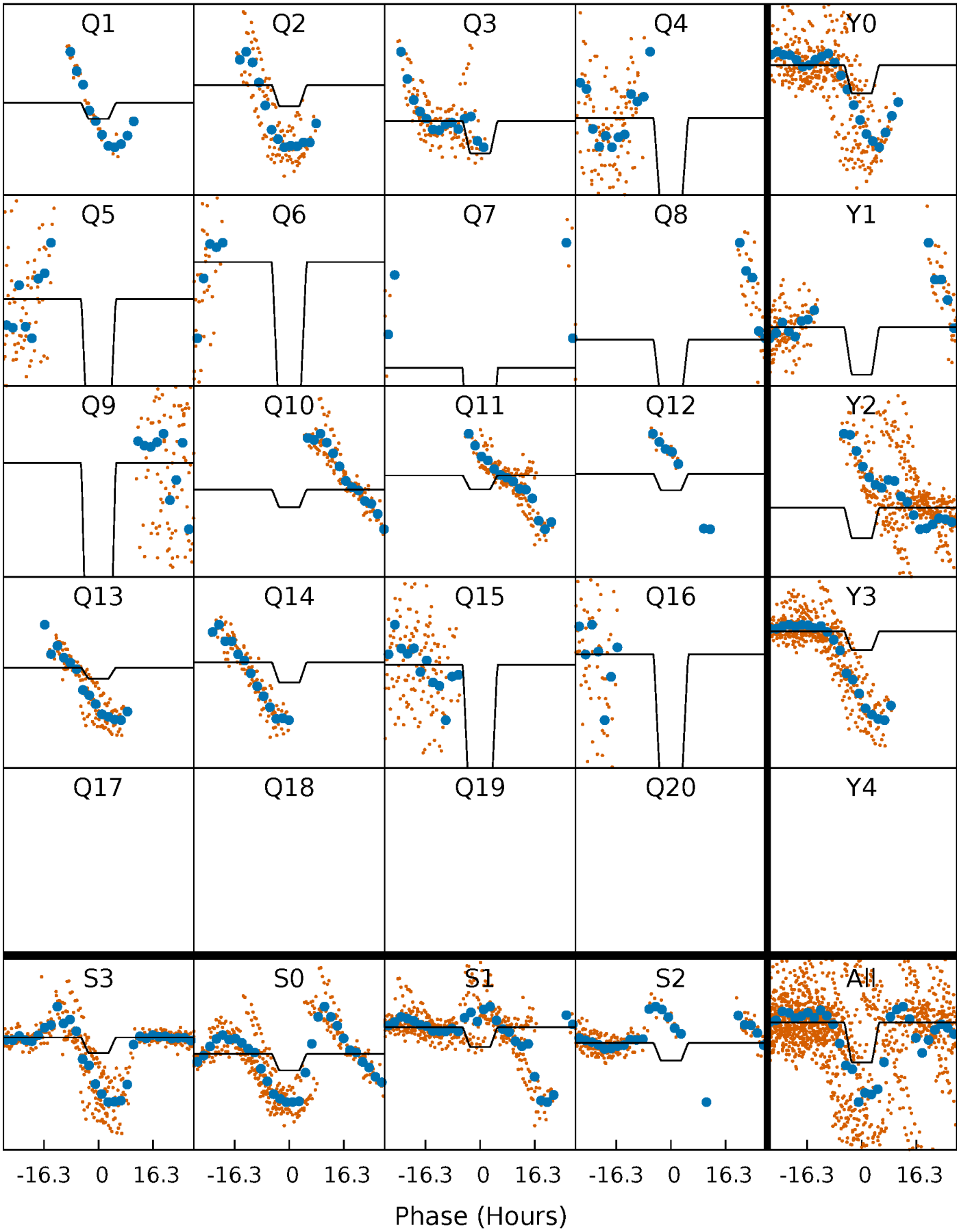
DV Quarter-Phased Transit Curves

TCE 008125652-02 P= 28.727124 Days T_0=149.308878 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

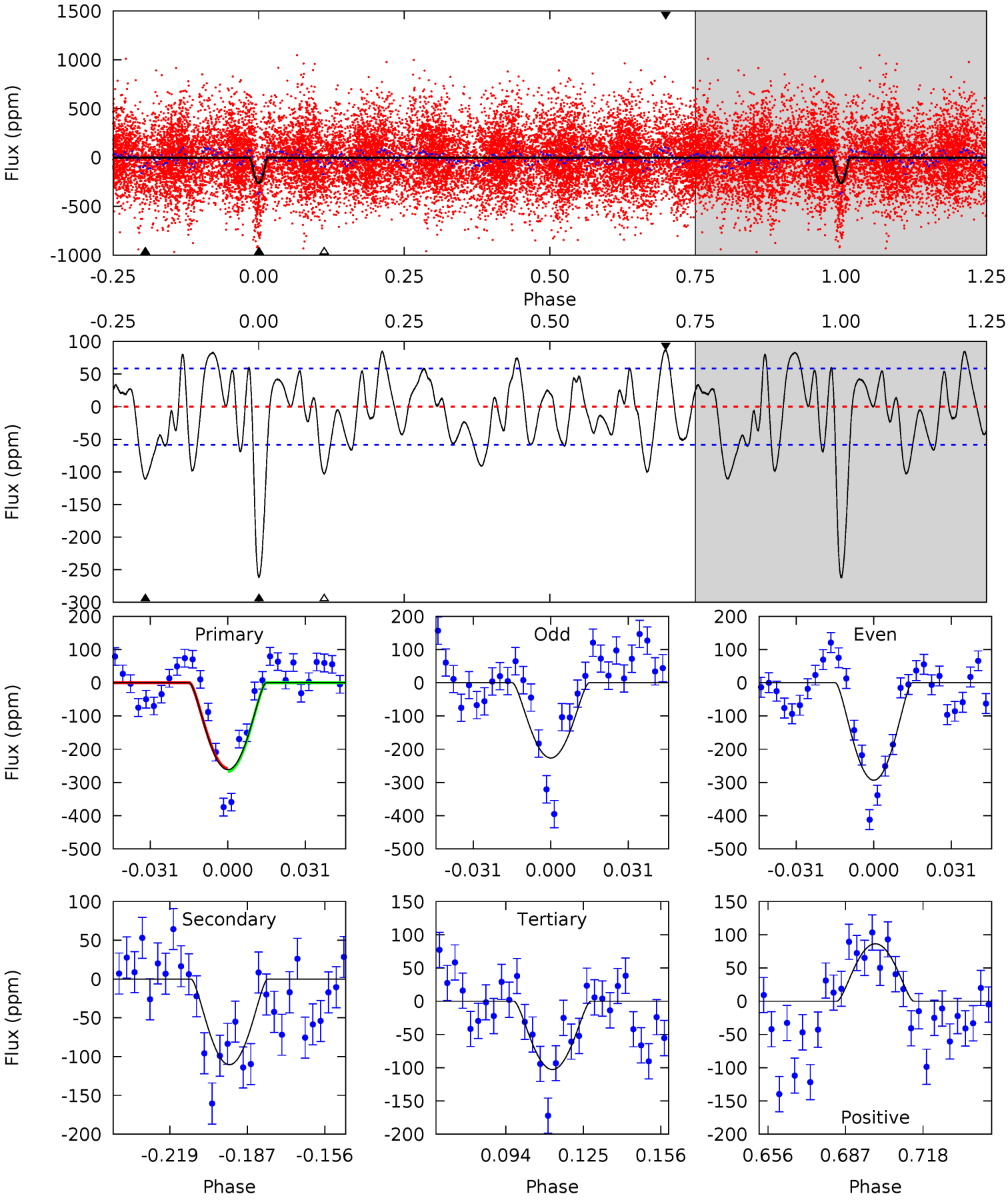
TCE 008125652-02 P= 28.729412 Days T_0=148.986091 (BKJD)



DV Model-Shift Uniqueness Test

008125652-02, P = 28.727124 Days, E = 120.581754 Days

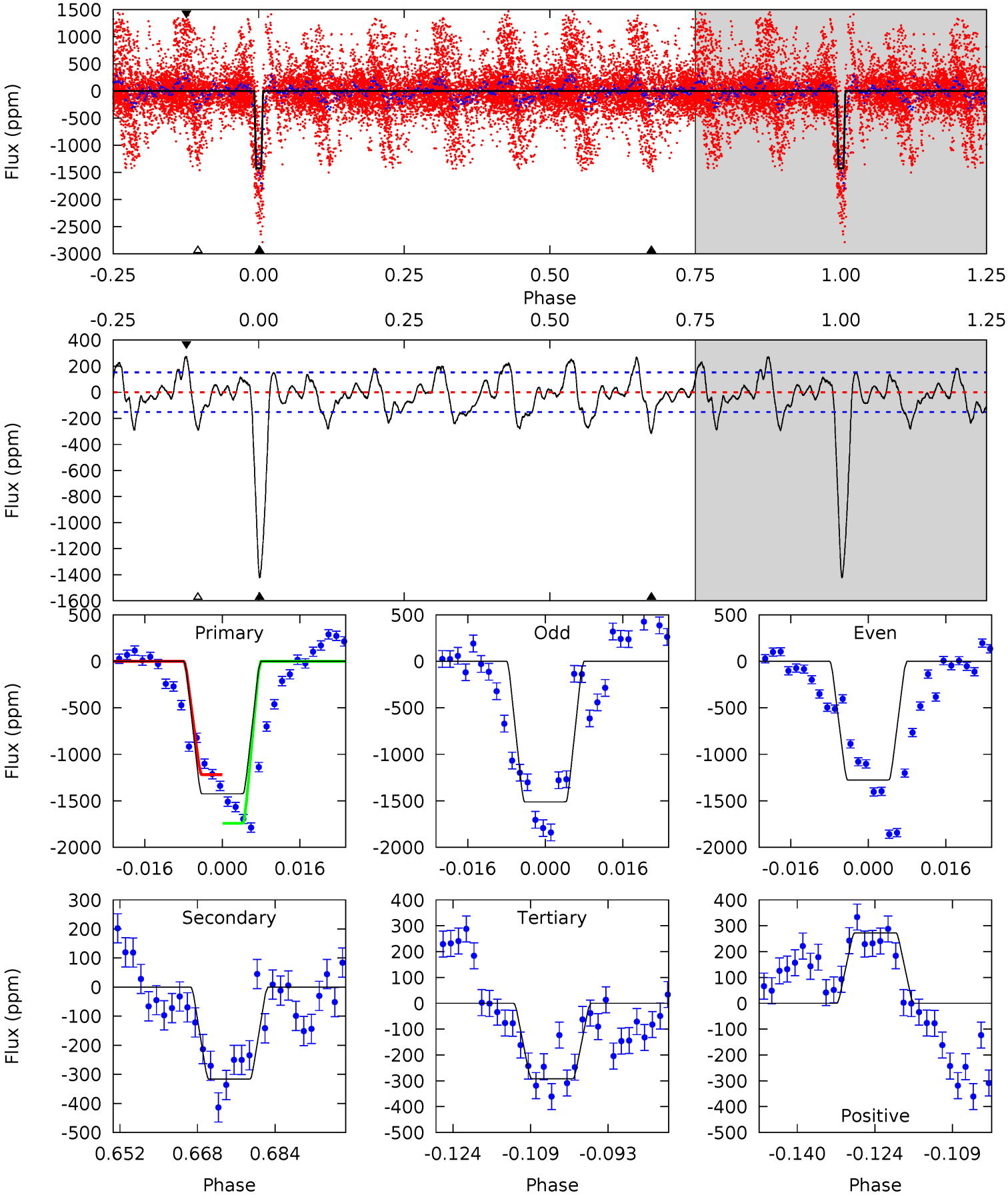
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.5	9.07	8.44	7.10	4.80	2.15	3.50	13.0	14.4	0.63	1.98	2.75	-11.7	0.25	0.38



Alt Model-Shift Uniqueness Test

008125652-02, P = 28.729412 Days, E = 120.256679 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.3	10.3	9.49	8.86	4.94	2.42	4.01	36.8	37.5	0.80	1.43	4.00	0.51	0.16	8.29



Stellar Parameters For KIC 008125652

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6292^{+203}_{-225}	$3.791^{+0.488}_{-0.122}$	$-0.160^{+0.300}_{-0.300}$	$2.450^{+0.513}_{-1.281}$	$1.354^{+0.218}_{-0.327}$	$0.130^{+0.716}_{-0.050}$
	+3%/-4%	+13%/-3%	+188%/-188%	+21%/-52%	+16%/-24%	+552%/-38%
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 008125652-02 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-110±12	$14.45^{+14.04}_{-10.01}$	1315^{+104}_{-167}	3215^{+1572}_{-548}	12^{+115}_{-9}
Alt.	-316±31	$12.22^{+13.44}_{-8.20}$	1305^{+103}_{-173}	3982^{+2483}_{-814}	48^{+393}_{-37}

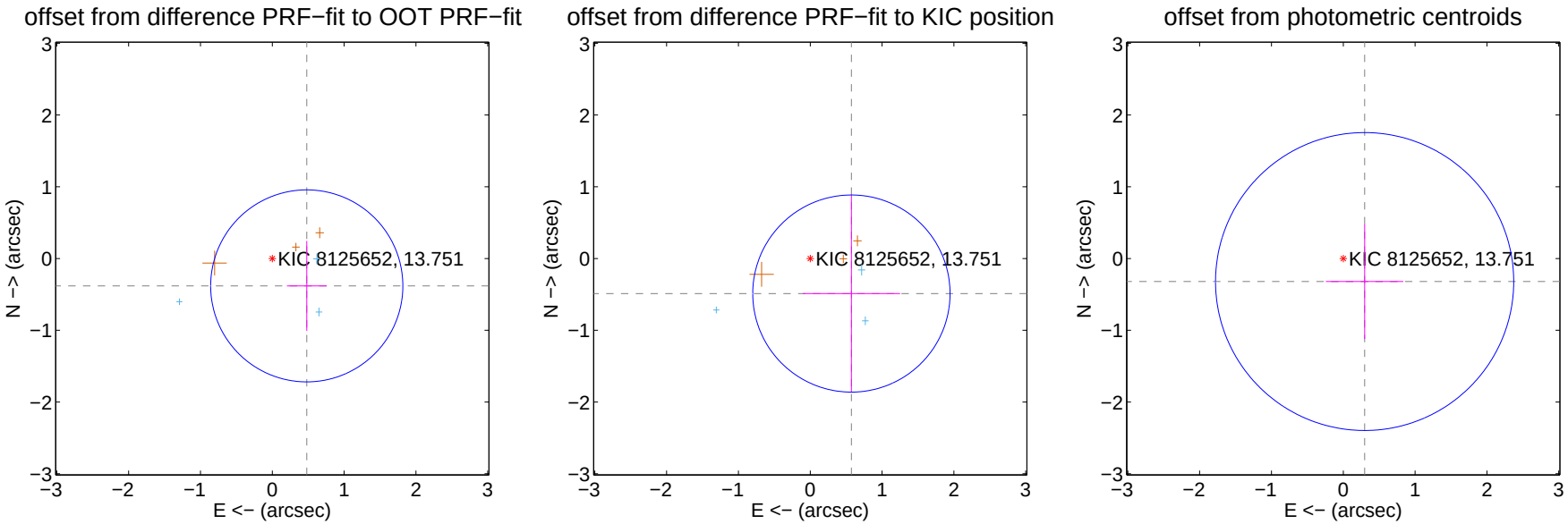
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

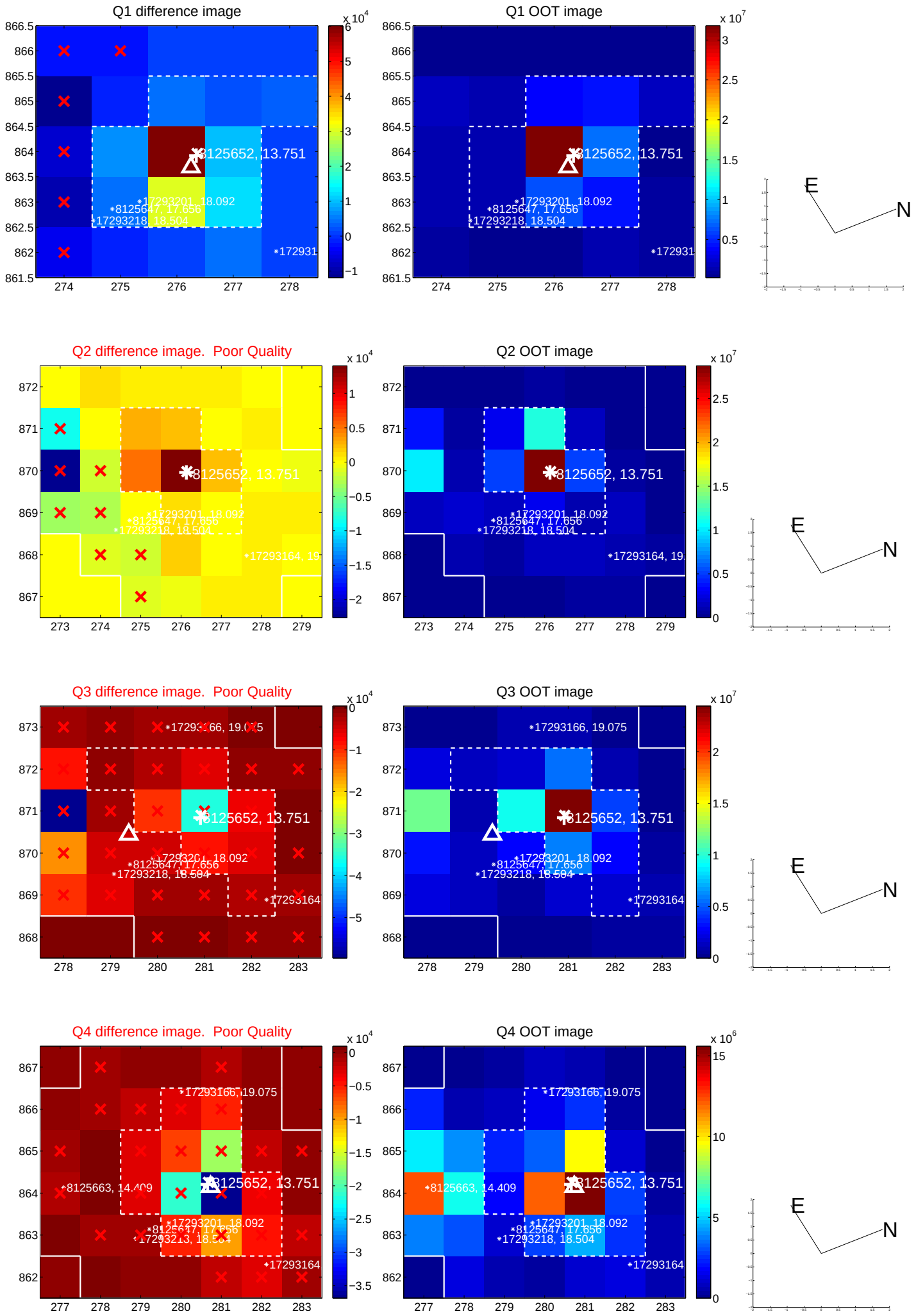
Supplemental centroid analysis for 008125652-02. Kepler magnitude: 13.75. Transit SNR 10.93
There are 4 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.613 ± 0.446	1.37	-0.480 ± 0.277	-0.381 ± 0.627
PRF-fit source offset from KIC position	0.753 ± 0.458	1.64	-0.573 ± 0.678	-0.488 ± 1.377
photometric centroid source offset	0.44 ± 0.69	0.63	-0.30 ± 0.54	-0.32 ± 0.80

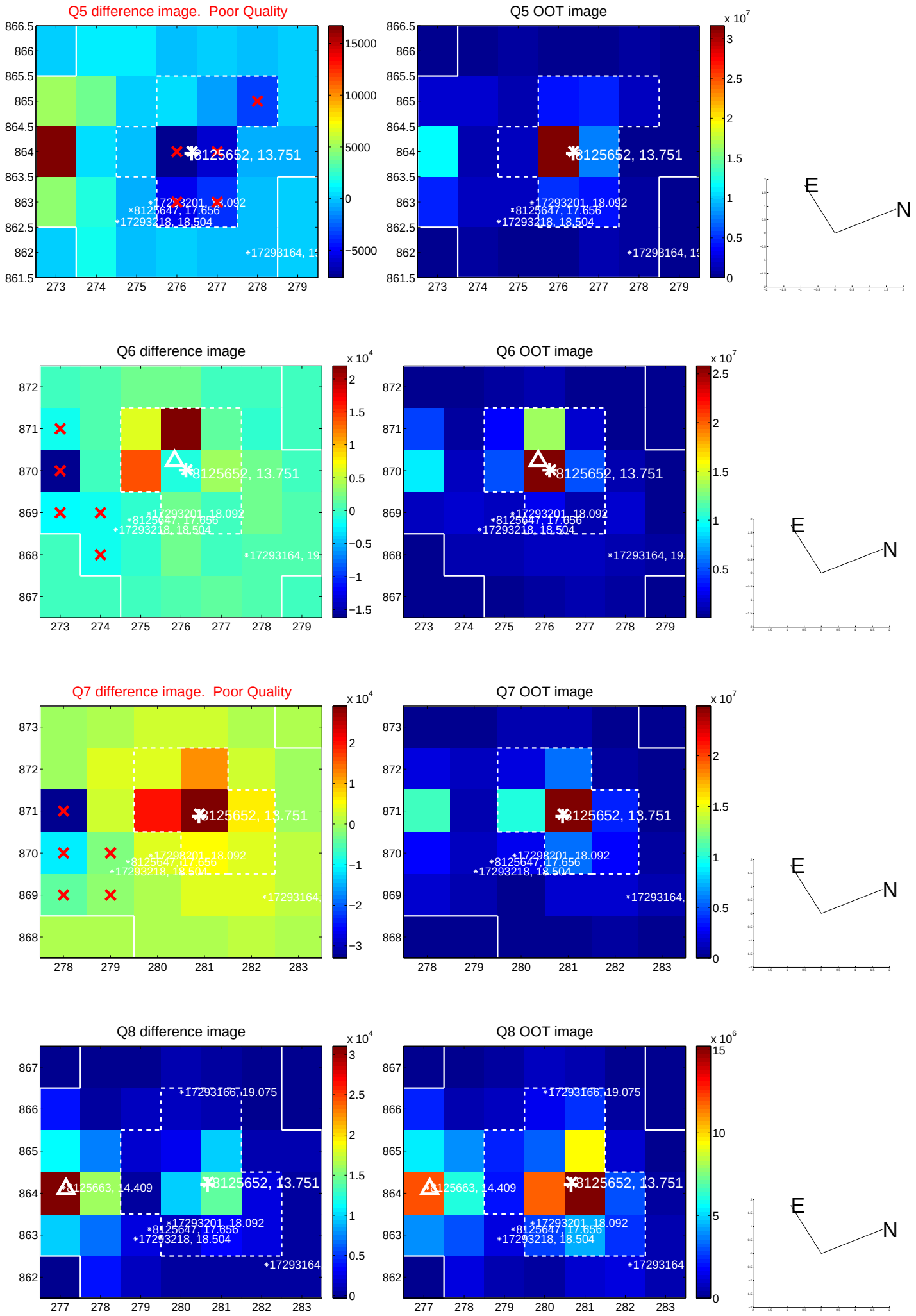


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

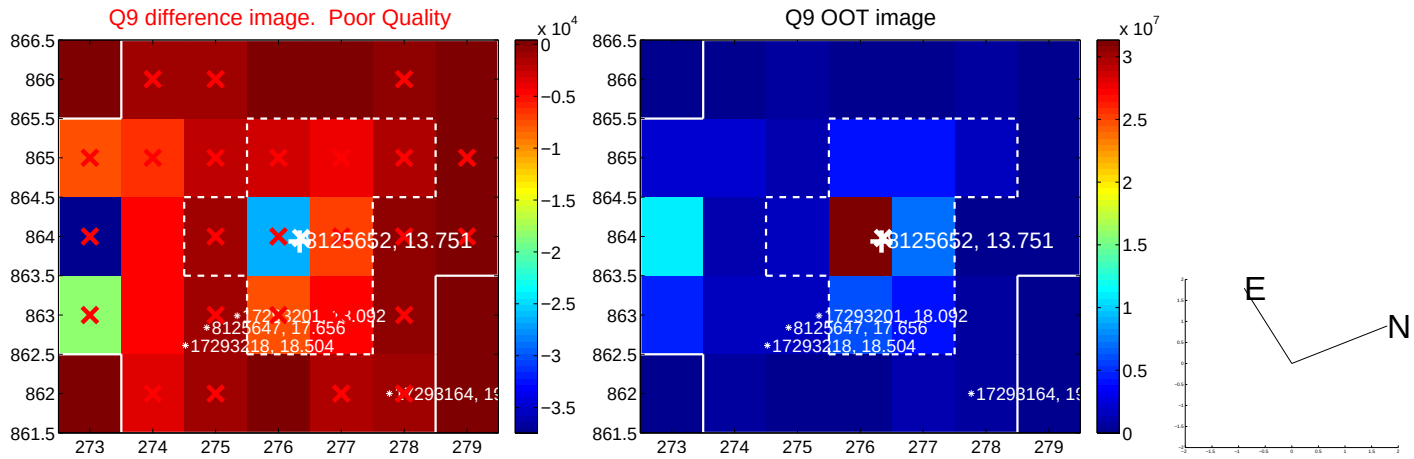
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

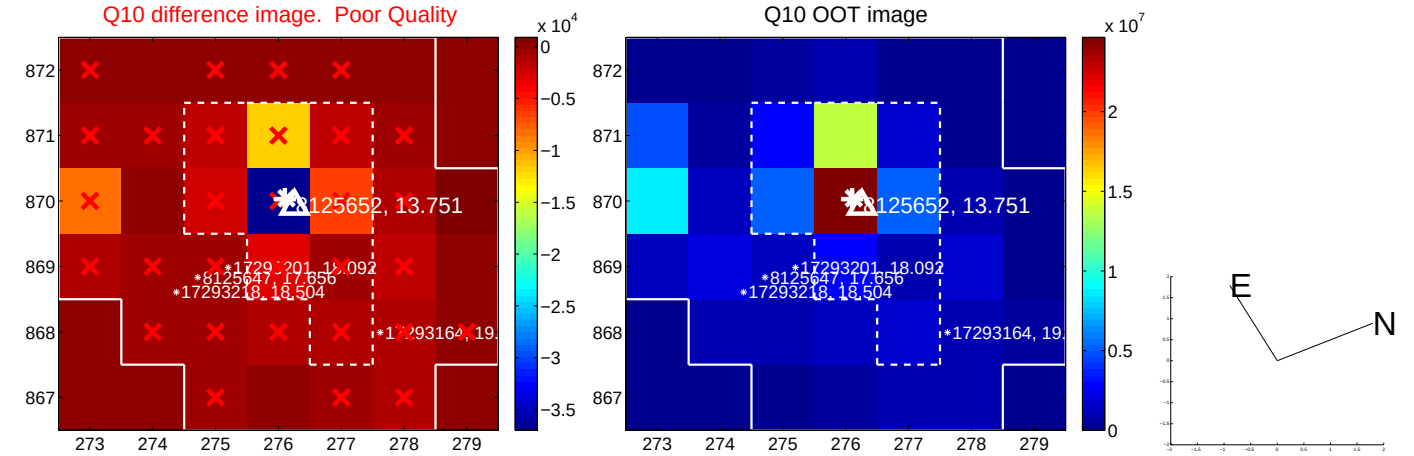


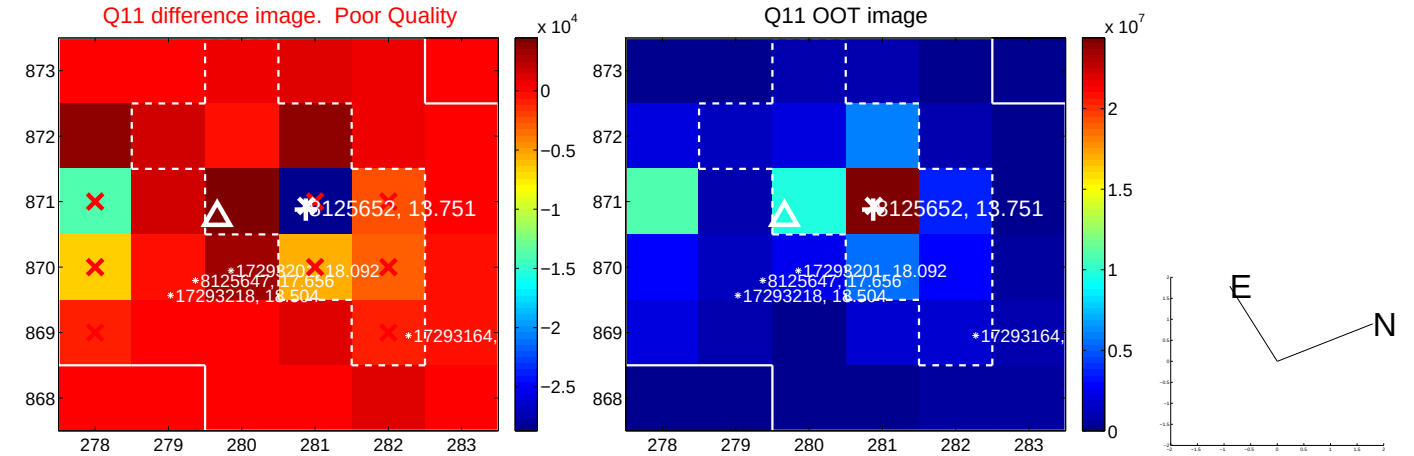
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

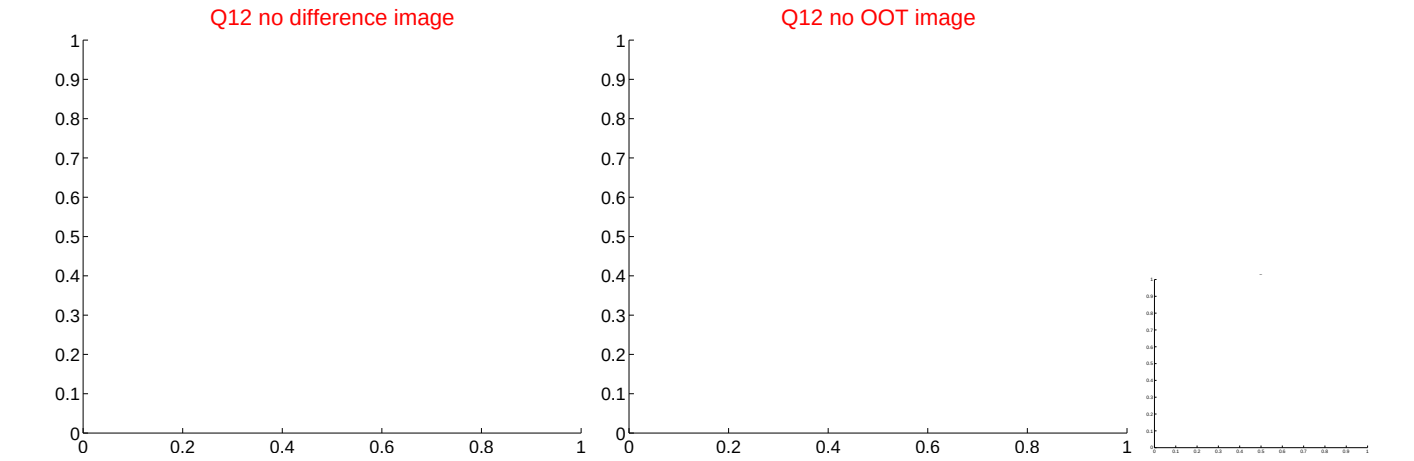


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

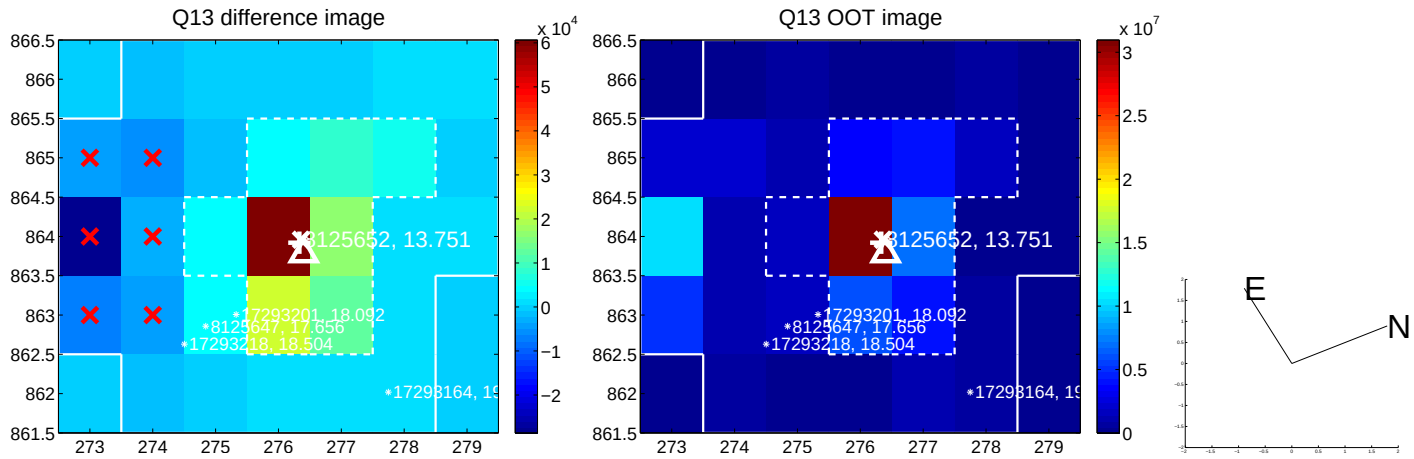


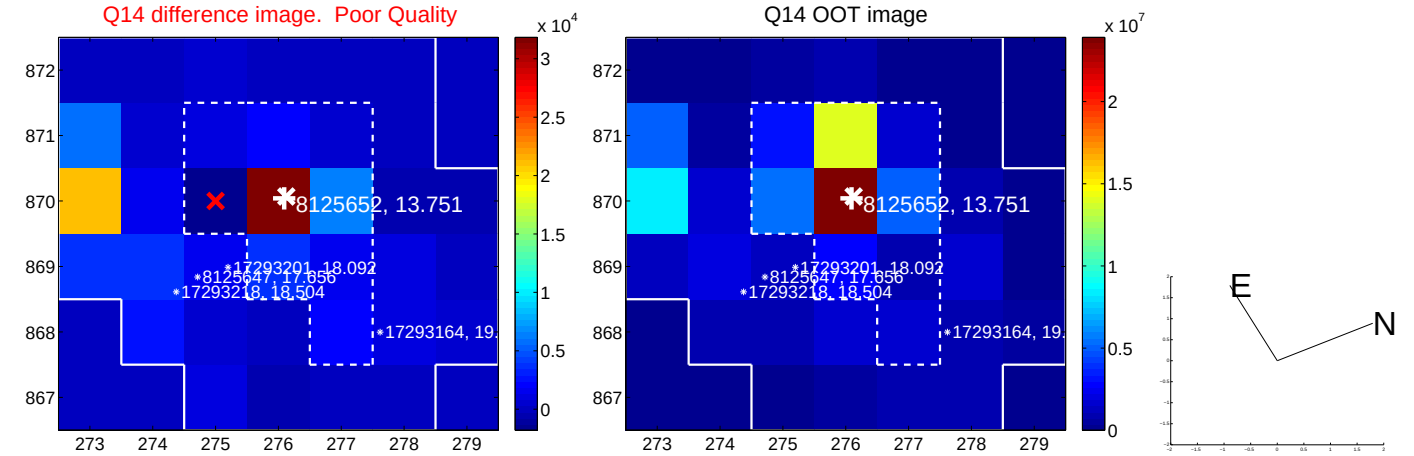


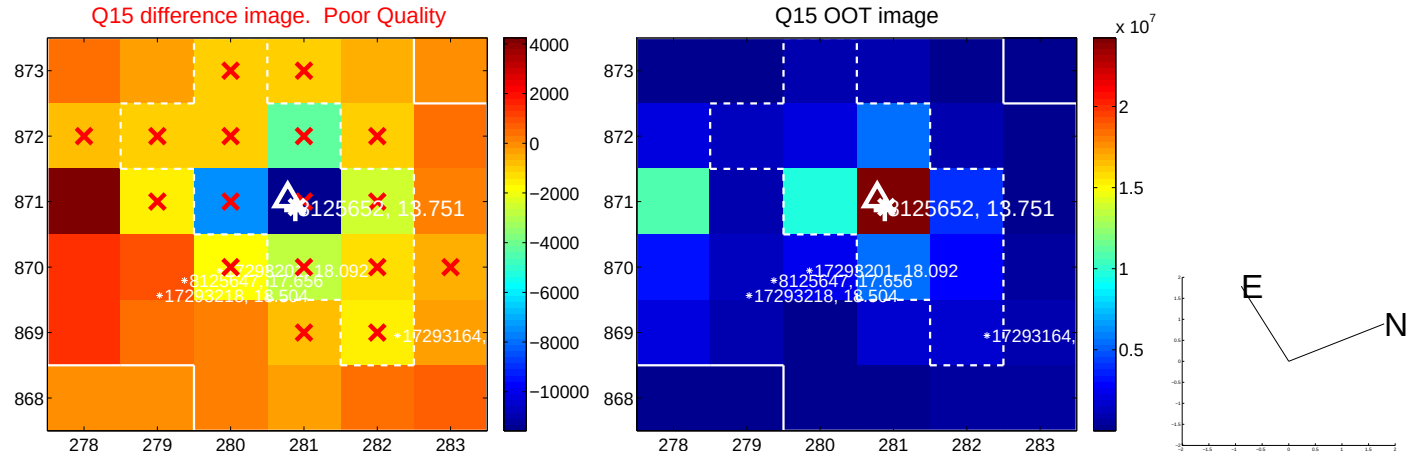


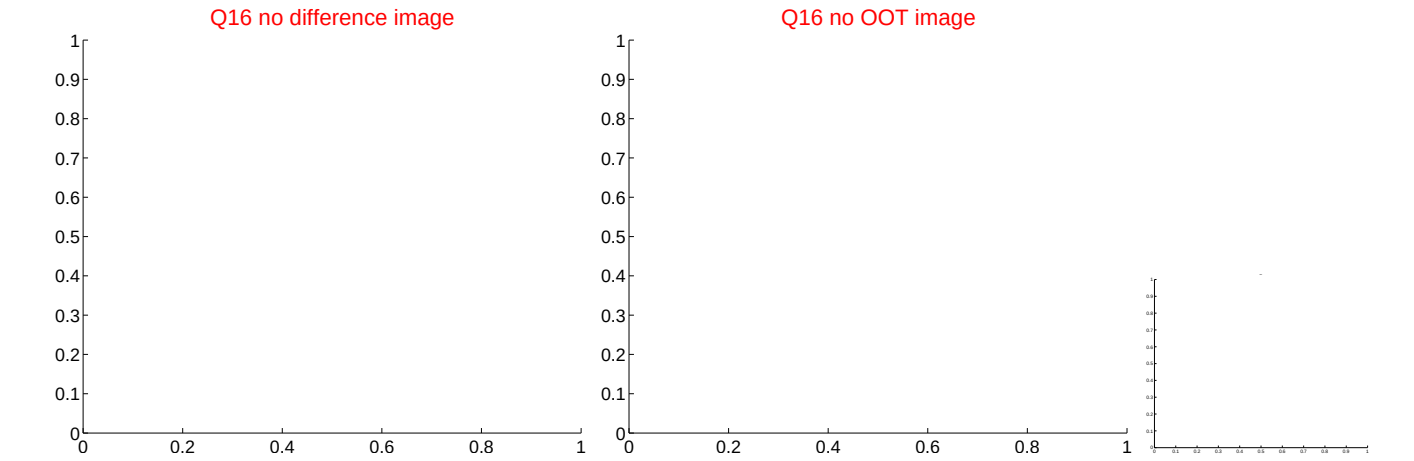


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

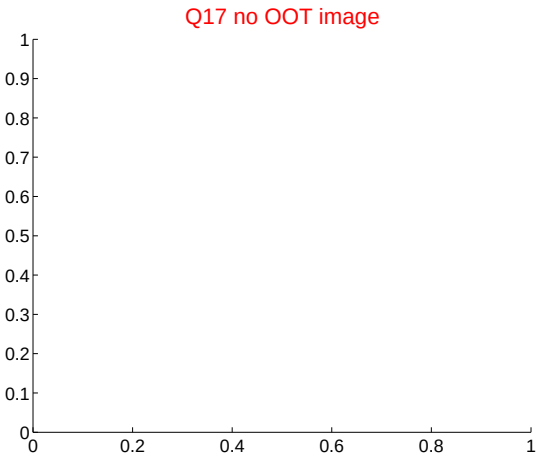


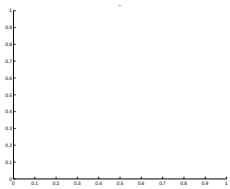


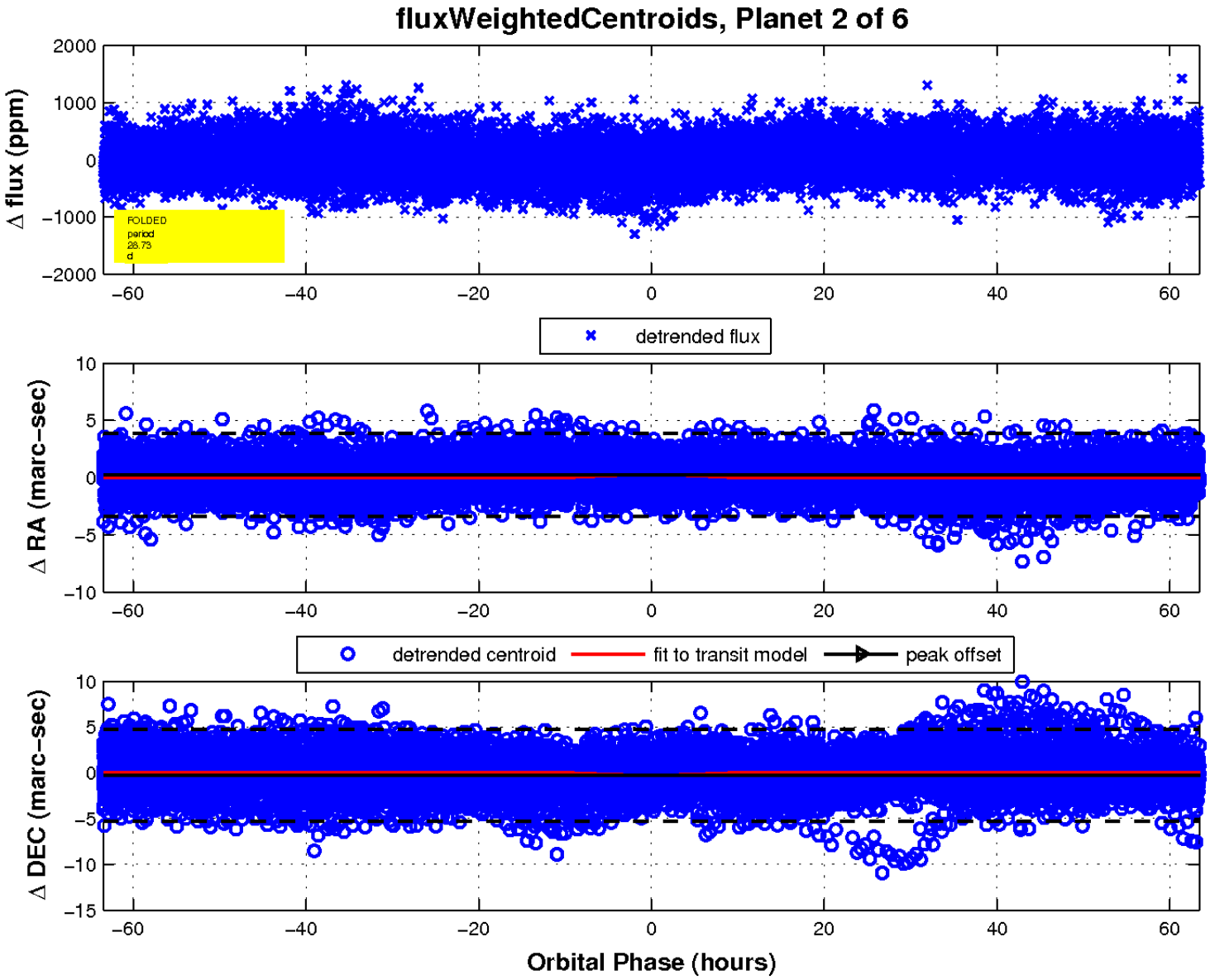




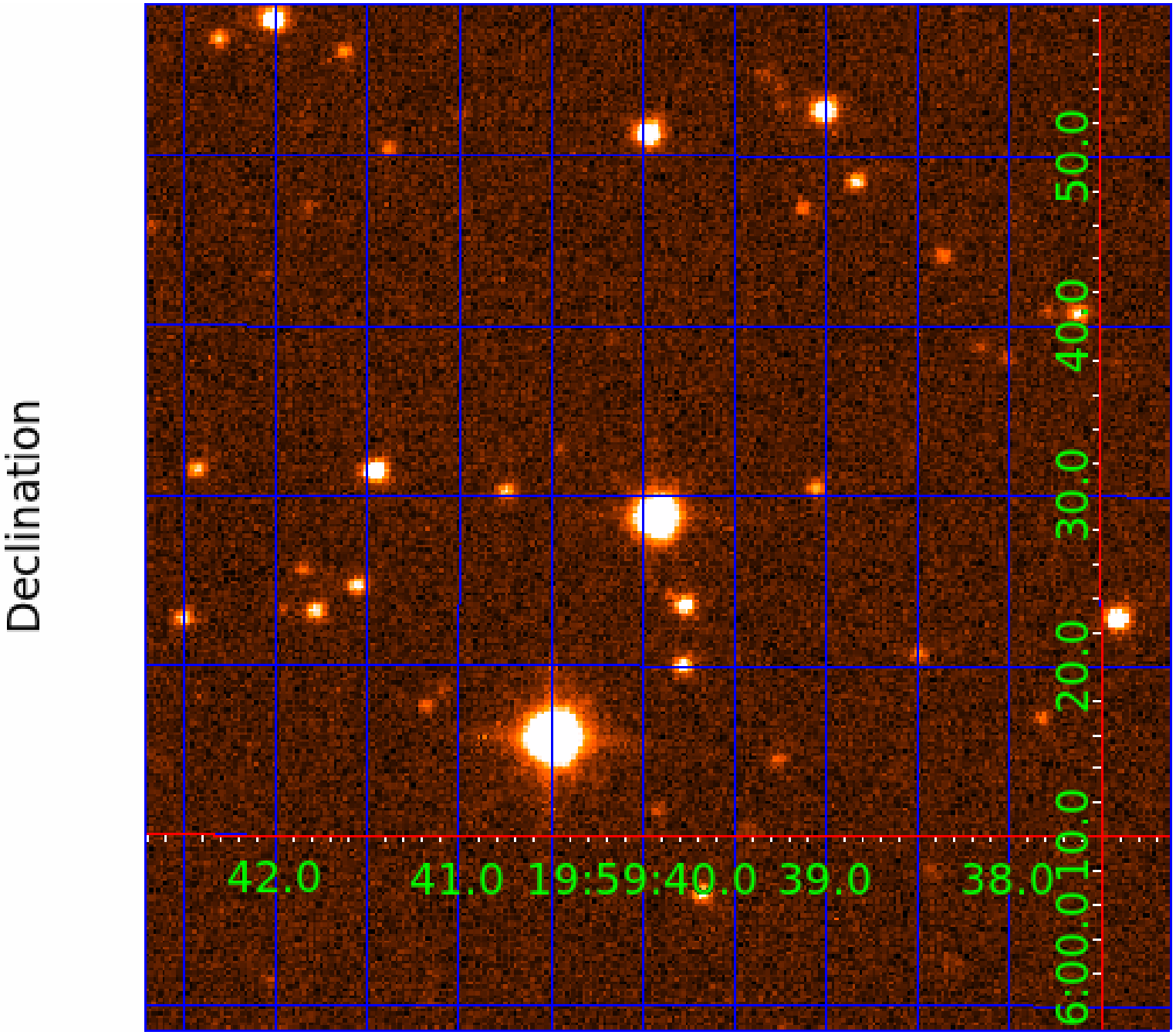
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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39.0
38.0
6:00:00.0
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20.0
30.0
40.0
50.0

KIC 008125652

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 ($S_\oplus$)
008125652-01	OBS	No	3.182158	131.504873	0.0	18.631	9.8	0.0	2.45	6292	0.00	3841.77
008125652-02	OBS	No	28.727124	149.308878	353.3	21.161	9.6	10.9	2.45	6292	9.02	204.38
008125652-03	OBS	No	110.196326	205.240048	229.1	3.744	9.3	4.8	2.45	6292	4.33	34.04
008125652-04	OBS	No	110.811196	202.626594	257.3	12.500	9.1	-1.0	2.45	6292	3.94	33.78
008125652-05	OBS	No	132.025221	179.090211	365.9	3.115	8.4	8.0	2.45	6292	4.88	26.75
008125652-06	OBS	No	145.168027	268.471453	350.6	8.490	7.3	6.9	2.45	6292	5.07	23.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008125652-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV
008125652-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
008125652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
008125652-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

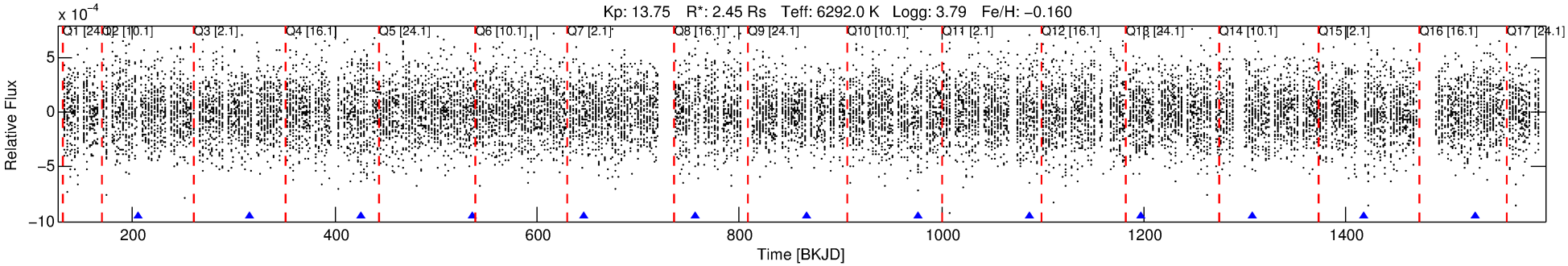
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

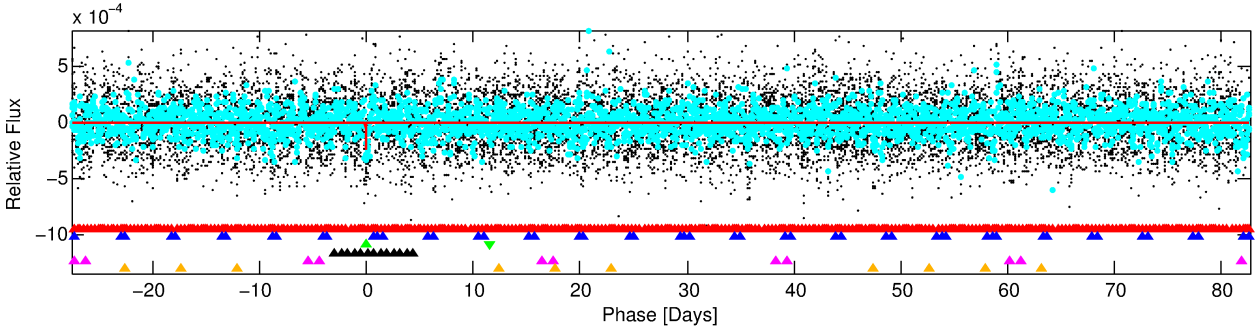
Ephemeris Match Information For 008125652-03

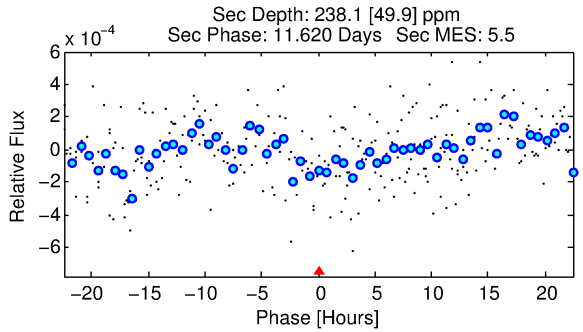
No Significant Match Found

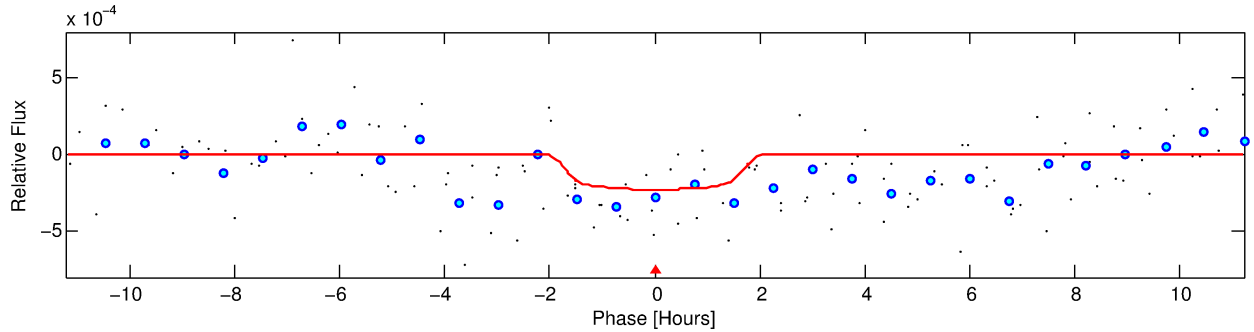
DV One-Page Summary

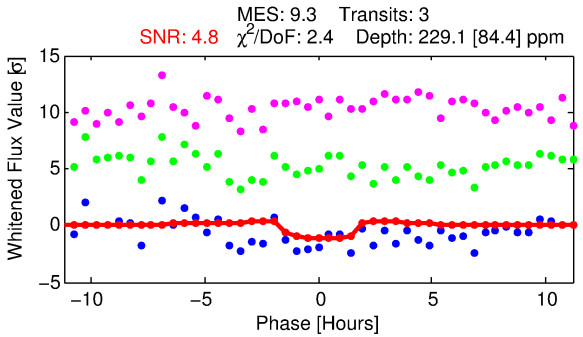
KIC: 8125652 Candidate: 3 of 6 Period: 110.196 d

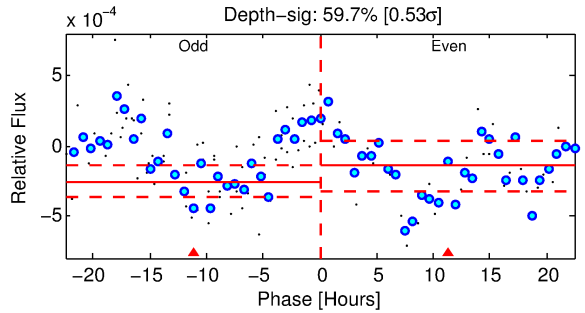


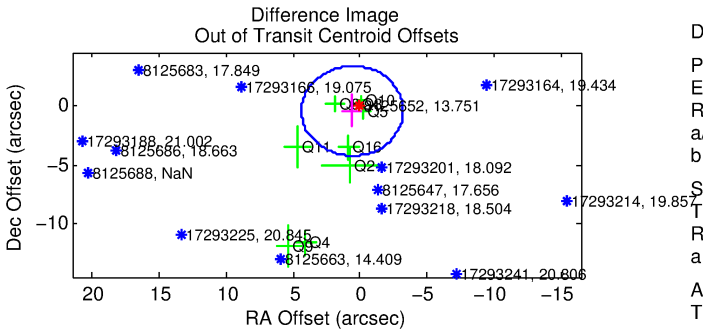












DV Fit Results:

Period = 110.19633 [0.00400] d
Epoch = 205.2400 [0.0288] BKJD
Rp/R* = 0.0162 [0.0150]
a/R* = 107.35 [523.31]
b = 0.90 [1.08]

Seff = 34.04 [28.54]
Teq = 616 [129] K
Rp = 4.34 [4.61] Re
a = 0.4976 [0.2546] AU

Ag = 1726.20 [3521.35] [0.49σ]
Teffp = 6138 [2870] K [1.92σ]

DV Diagnostic Results:

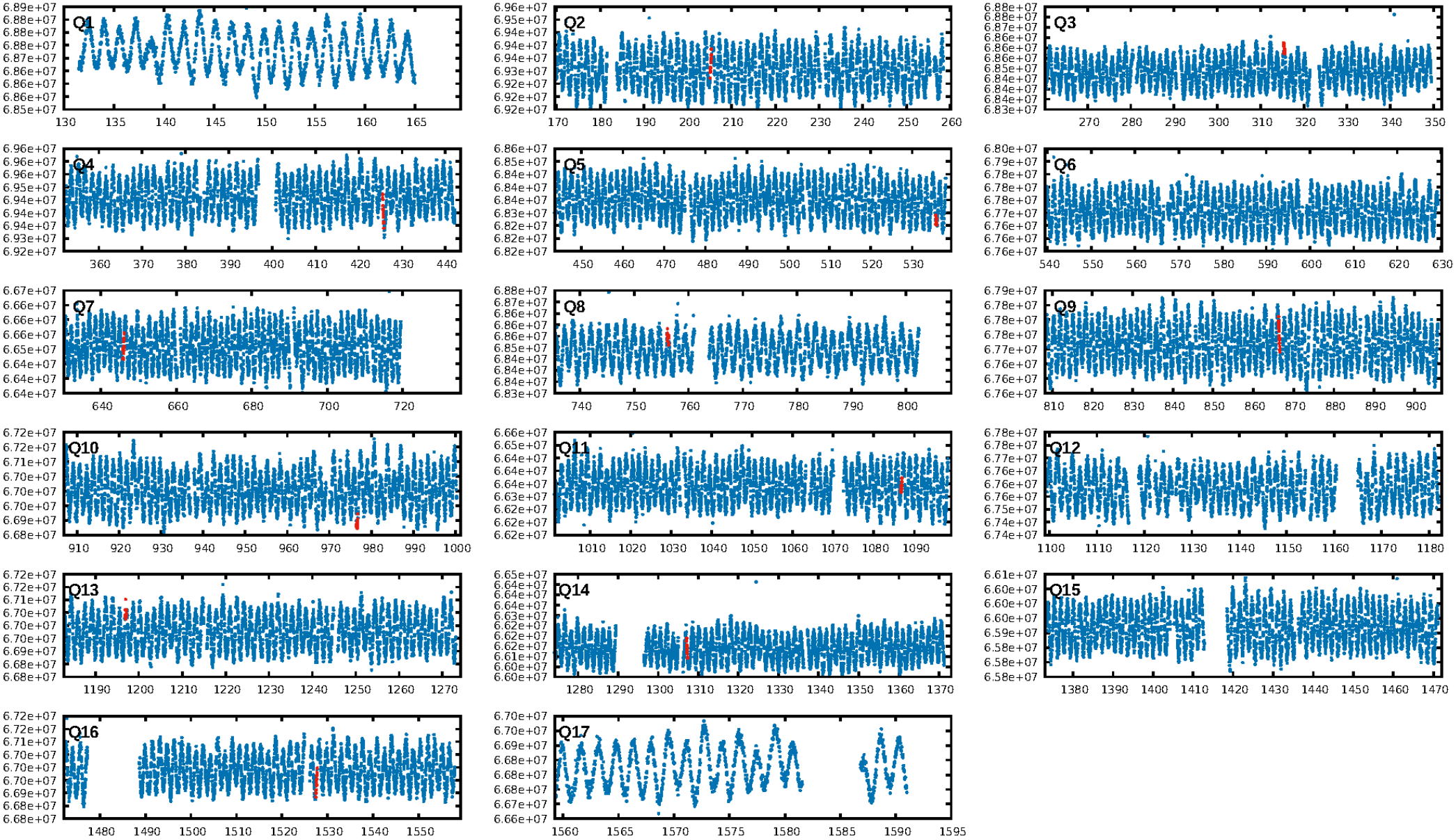
ShortPeriod−sig: 100.0% [90.99σ]
LongPeriod−sig: 74.2% [1.13σ]
ModelChiSquare2−sig: 98.5%
ModelChiSquareGof−sig: 29.9%
Bootstrap−pfa: 7.87e−08
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: −1.31

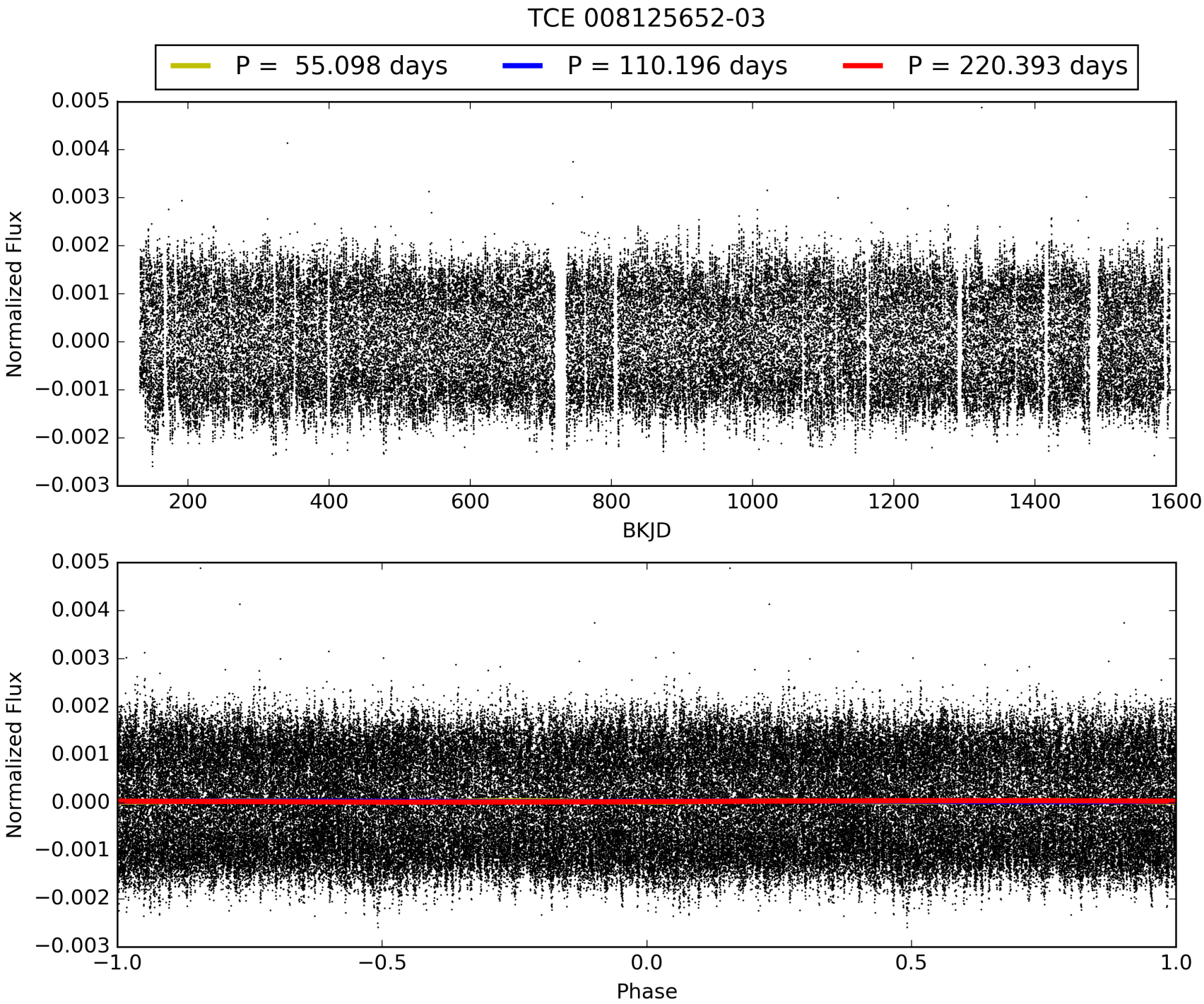
Centroid−sig: 2.9%
Centroid−so: 2.997 arcsec [1.54σ]
OotOffset−rm: 0.745 arcsec [0.59σ]
KicOffset−rm: 0.784 arcsec [0.58σ]
OotOffset−st: 2/2/3/2 [9]
KicOffset−st: 2/2/3/2 [9]
DiffImageQuality−fgm: 0.22 [2/9]
DiffImageOverlap−fno: 0.30 [3/10]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31−Jan−2016 10:47:59 Z

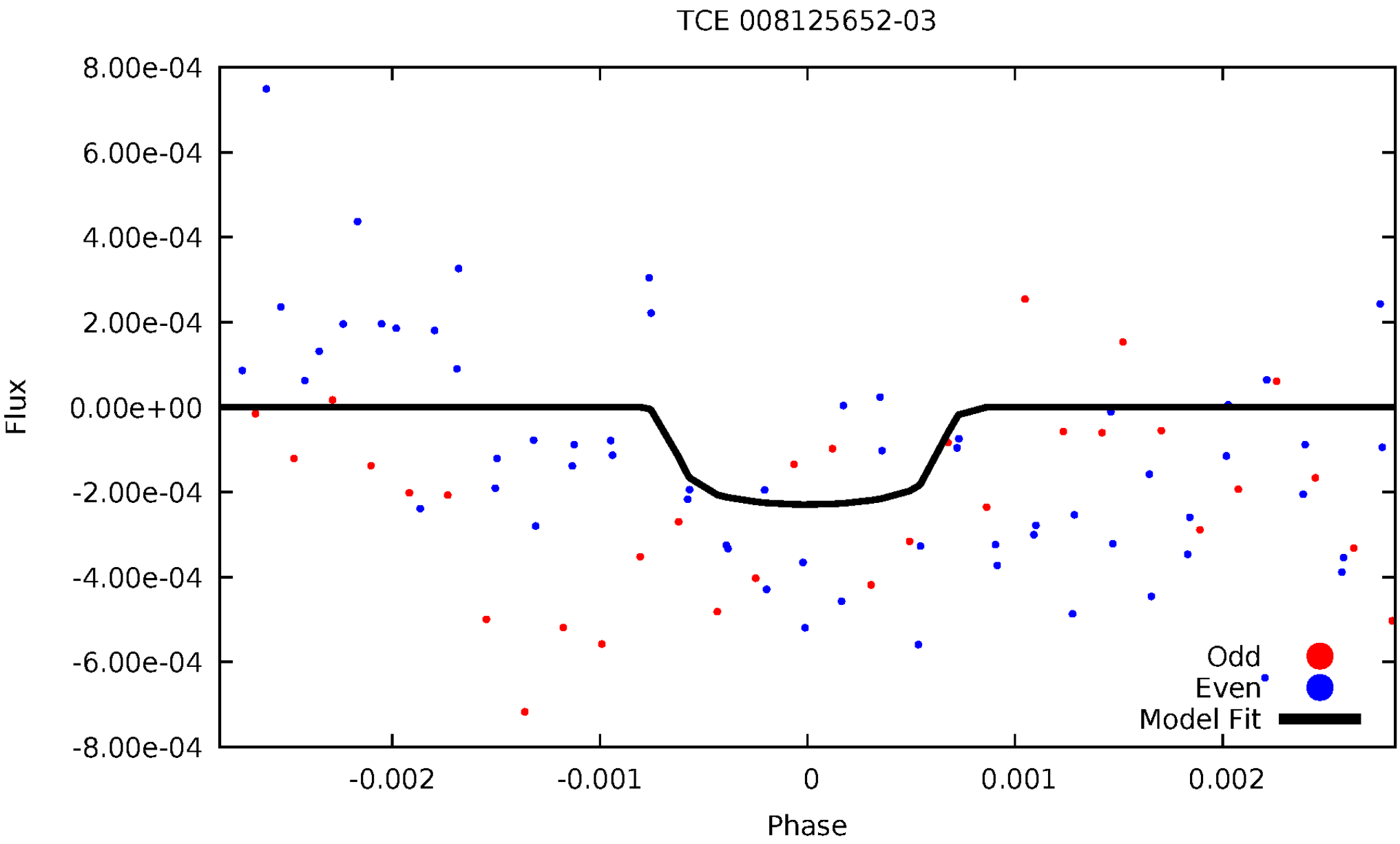
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008125652-03, PDC Light Curves

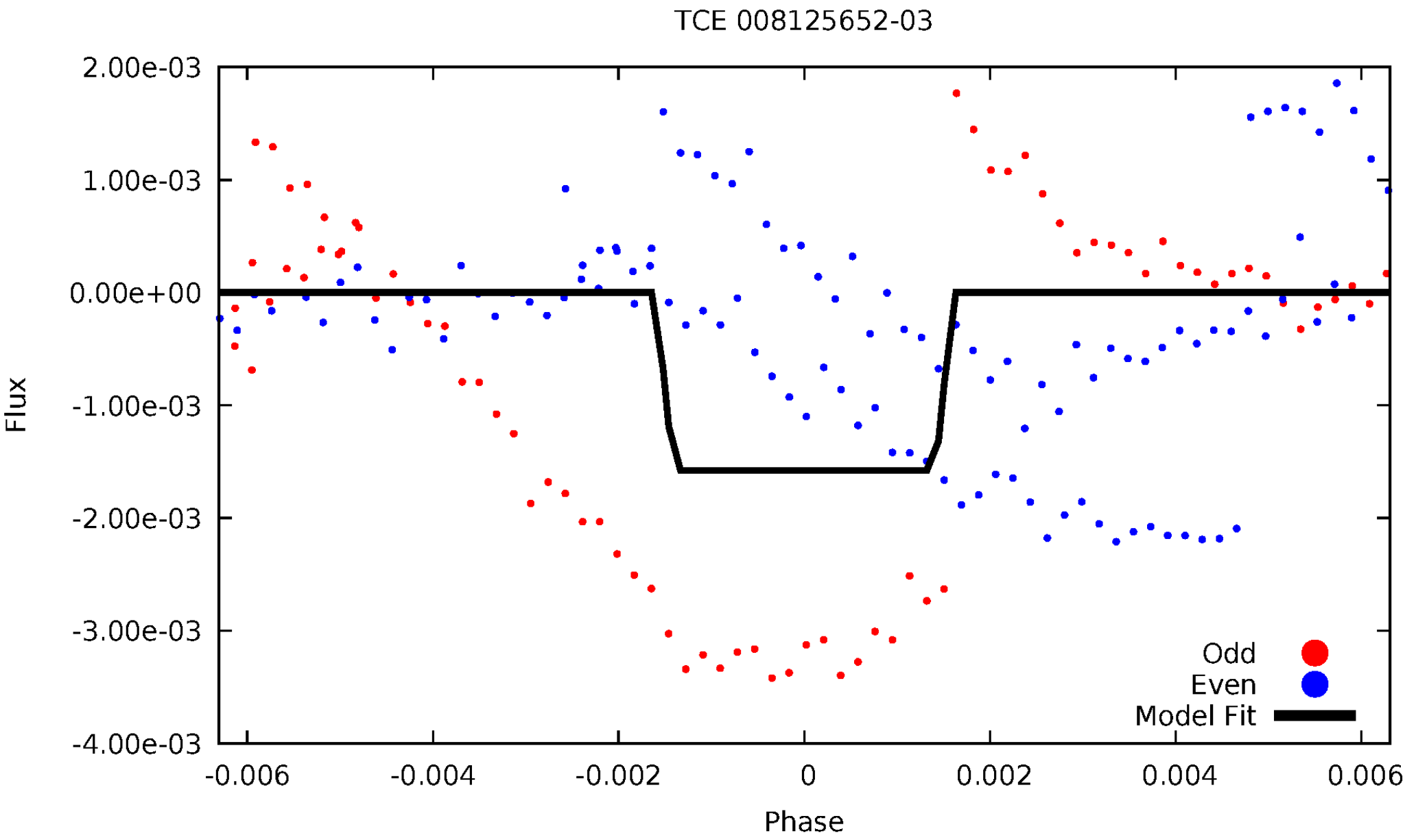



TCE 008125652-03
P = 55.098 days
P = 110.196 days
P = 220.393 days
Normalized Flux
BKJD
Normalized Flux
Phase

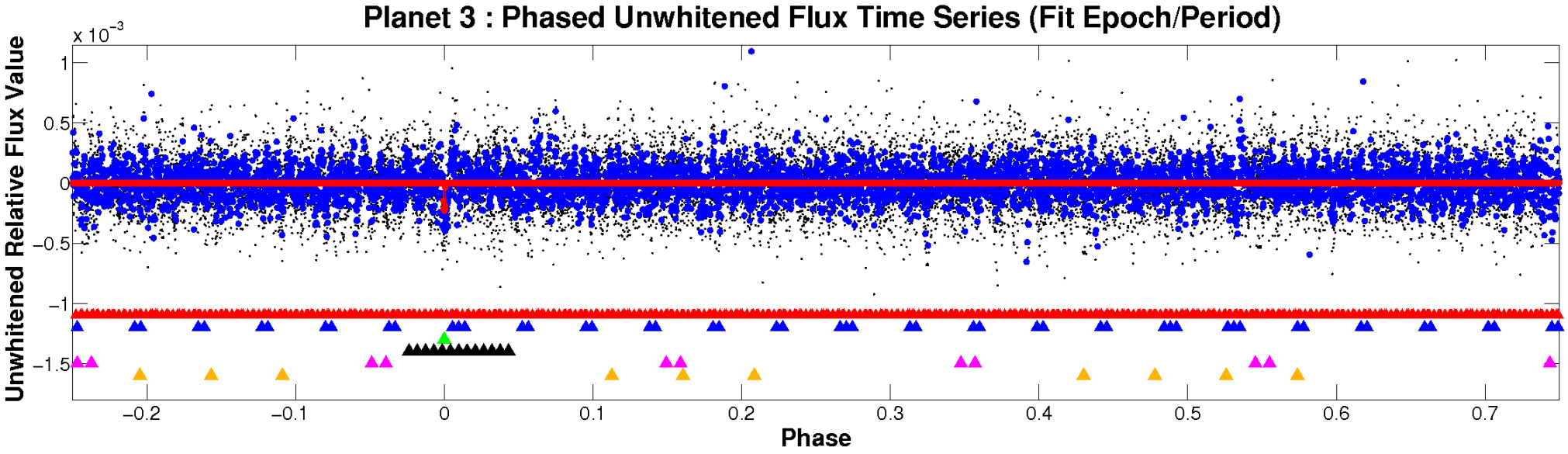
DV Odd/Even

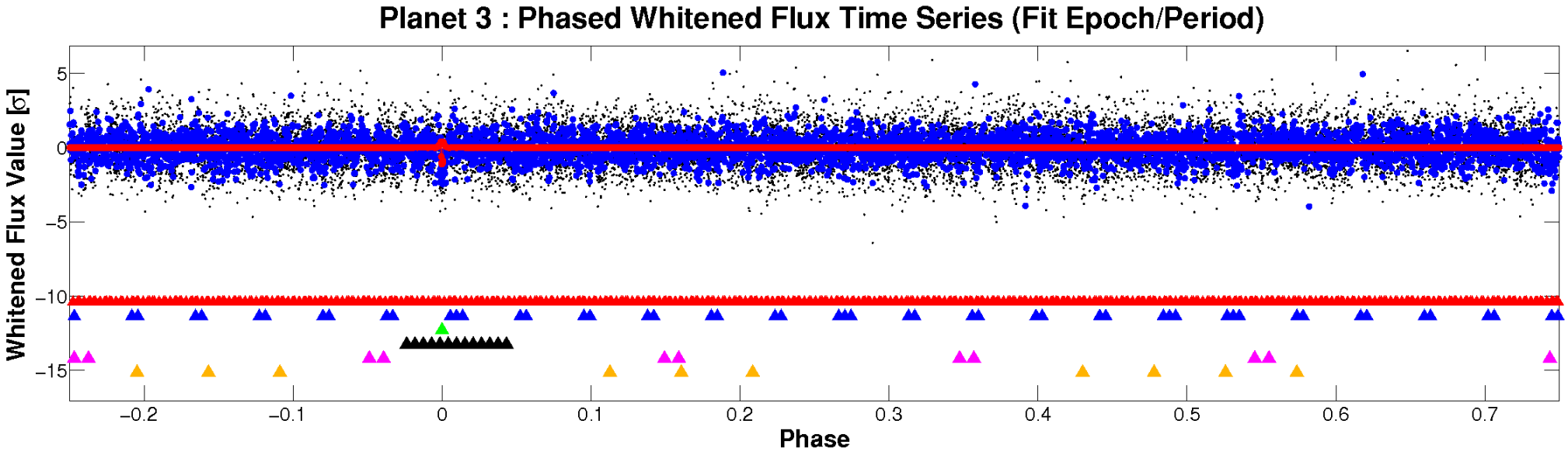

TCE 008125652-03
8.00e-04
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
Flux
-0.002
-0.001
0
0.001
0.002
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 008125652-03
2.00e-03
1.00e-03
0.00e+00
-1.00e-03
-2.00e-03
-3.00e-03
-4.00e-03
Flux
-0.006
-0.004
-0.002
0
0.002
0.004
0.006
Phase
Odd
Even
Model Fit

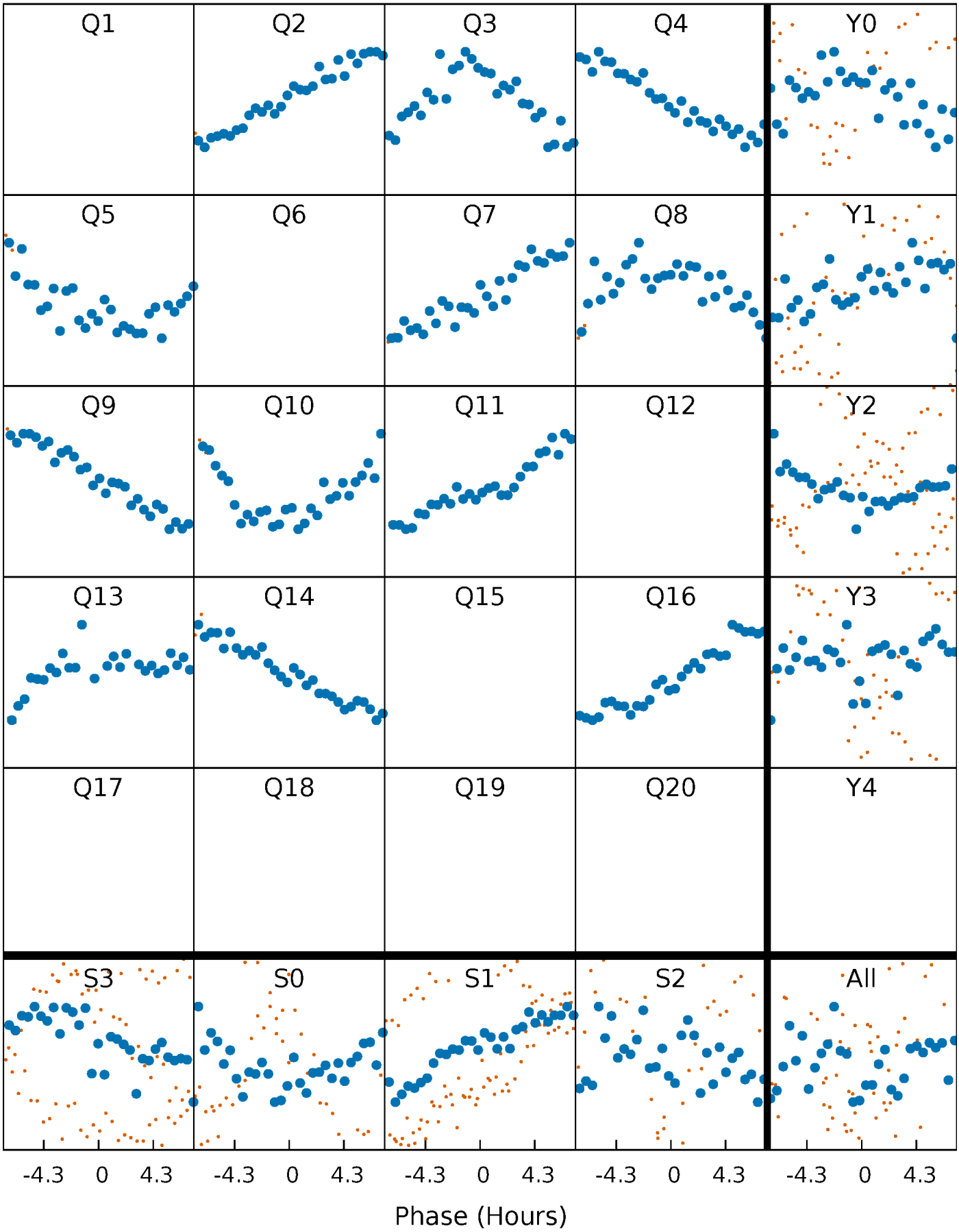
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 008125652-03 P=110.196326 Days T_0=205.240048 (BKJD)

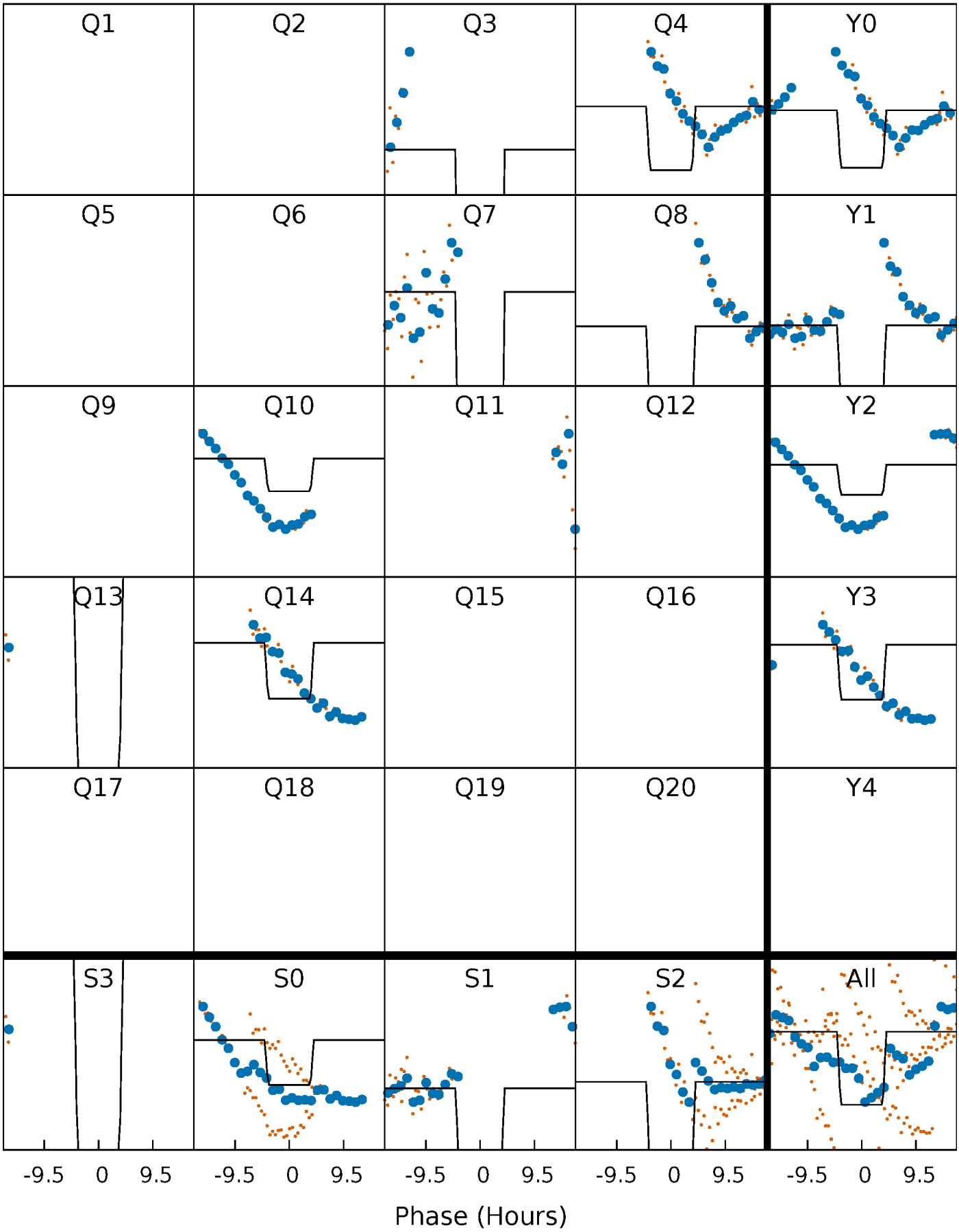


DV Quarter-Phased Transit Curves

TCE 008125652-03 P=110.196326 Days T_0=205.240048 (BKJD)

Alt. Detrend Quarter-Phased Transit Curves

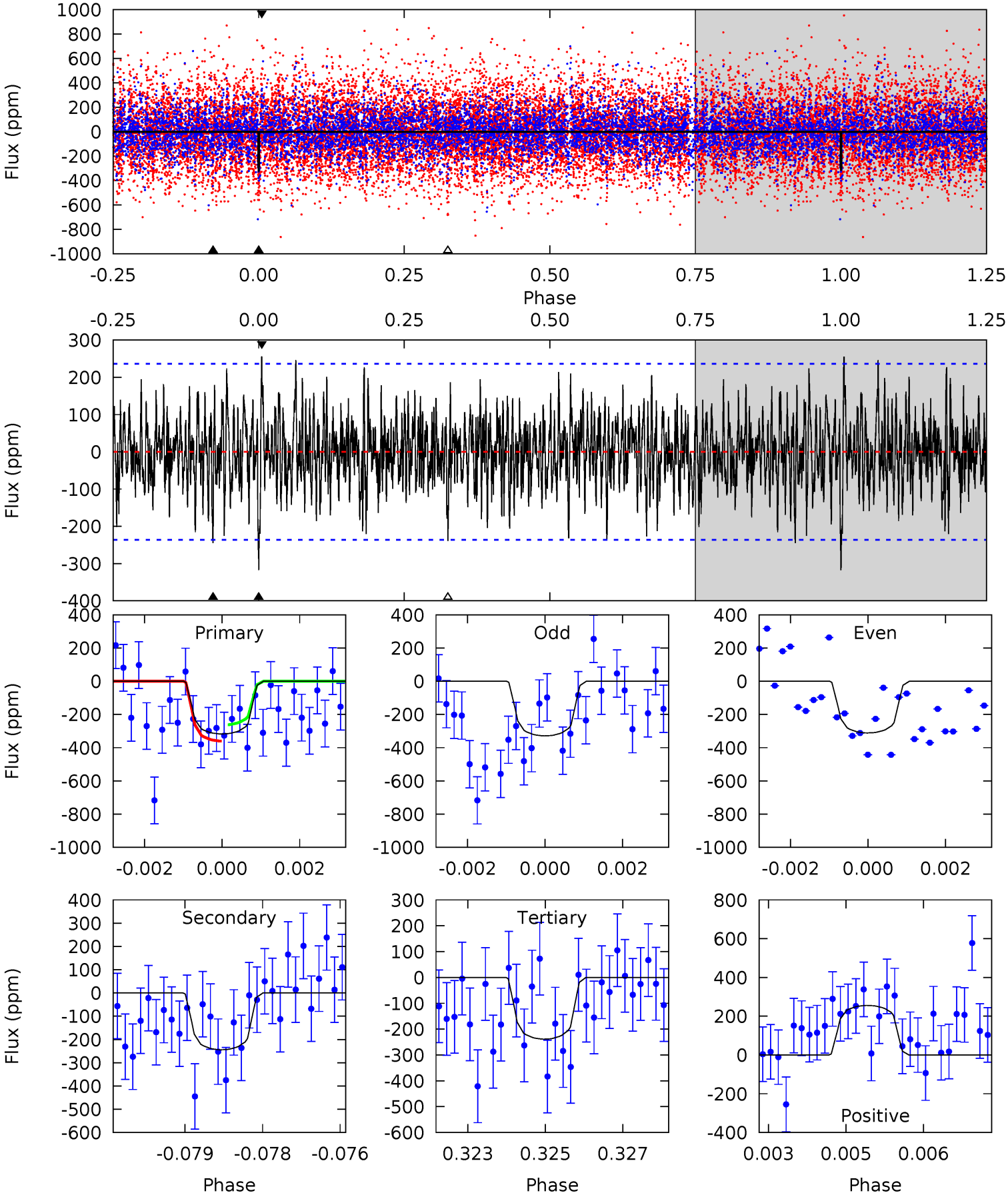
TCE 008125652-03 P=110.198189 Days T_0=205.217690 (BKJD)



DV Model-Shift Uniqueness Test

008125652-03, P = 110.196326 Days, E = 95.043722 Days

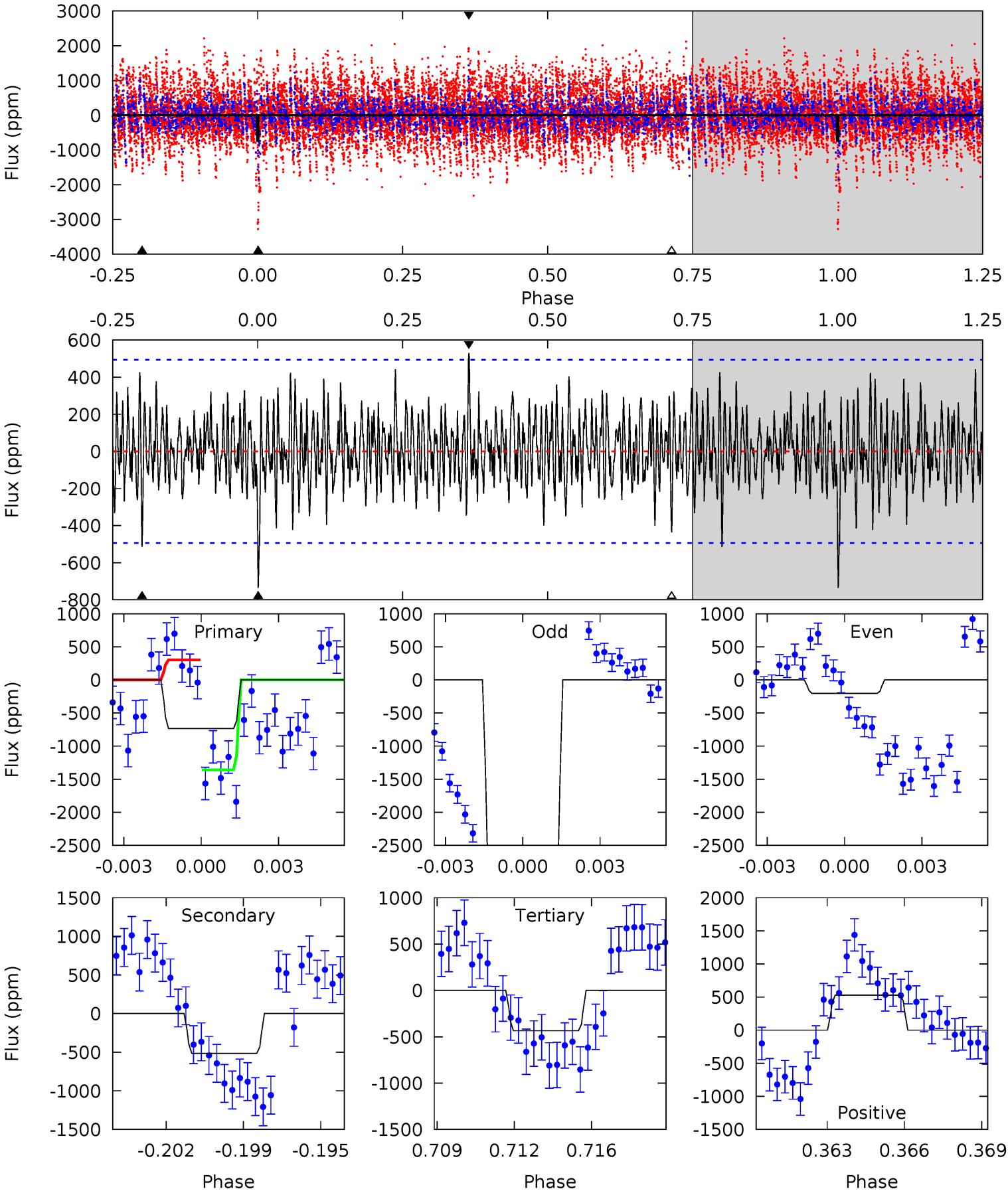
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.21	5.55	5.43	5.81	5.37	3.15	1.72	1.78	1.40	0.12	-0.26	0.19	0.98	0.45	1.12



Alt Model-Shift Uniqueness Test

008125652-03, P = 110.198189 Days, E = 95.019501 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.82	5.47	4.62	5.63	5.24	2.95	1.51	3.20	2.19	0.85	-0.16	16.8	1.46	0.42	5.43



Stellar Parameters For KIC 008125652

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	M($M_\odot$)	$p_\star$ (g·cm^{-3})
	6292^{+203}_{-225}	$3.791^{+0.488}_{-0.122}$	$-0.160^{+0.300}_{-0.300}$	$2.450^{+0.513}_{-1.281}$	$1.354^{+0.218}_{-0.327}$	$0.130^{+0.716}_{-0.050}$
	+3%/-4%	+13%/-3%	+188%/-188%	+21%/-52%	+16%/-24%	+552%/-38%
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 008125652-03 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-244±44	$4.61^{+3.70}_{-2.80}$	838^{+69}_{-112}	5634^{+3772}_{-1145}	1548^{+8524}_{-1090}
Alt.	-515±94	$9.85^{+4.69}_{-4.17}$	841^{+66}_{-113}	4844^{+1103}_{-613}	750^{+1311}_{-415}

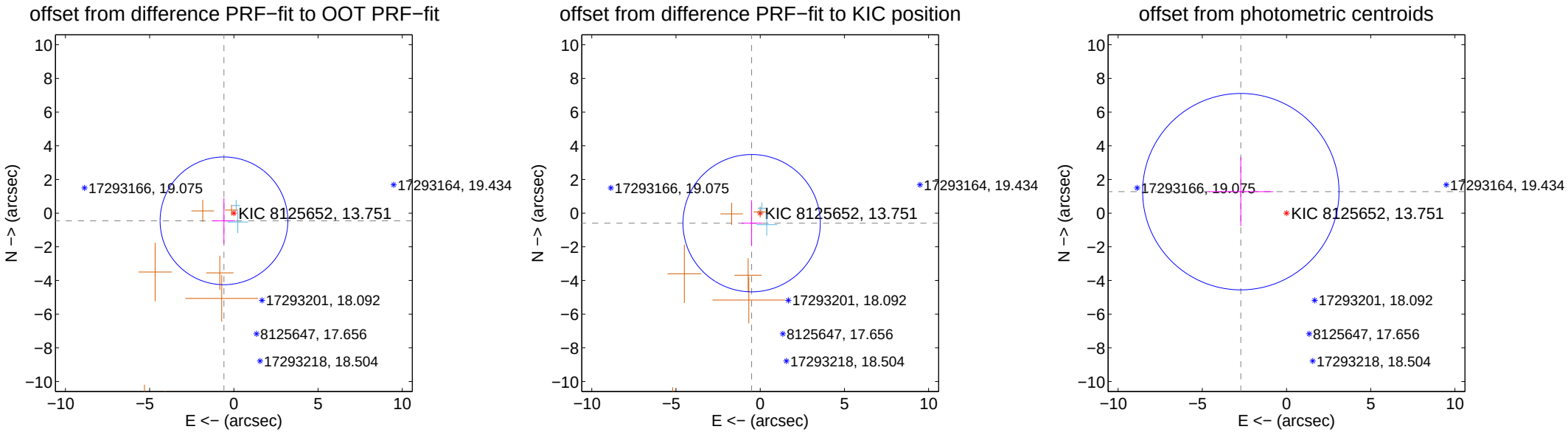
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

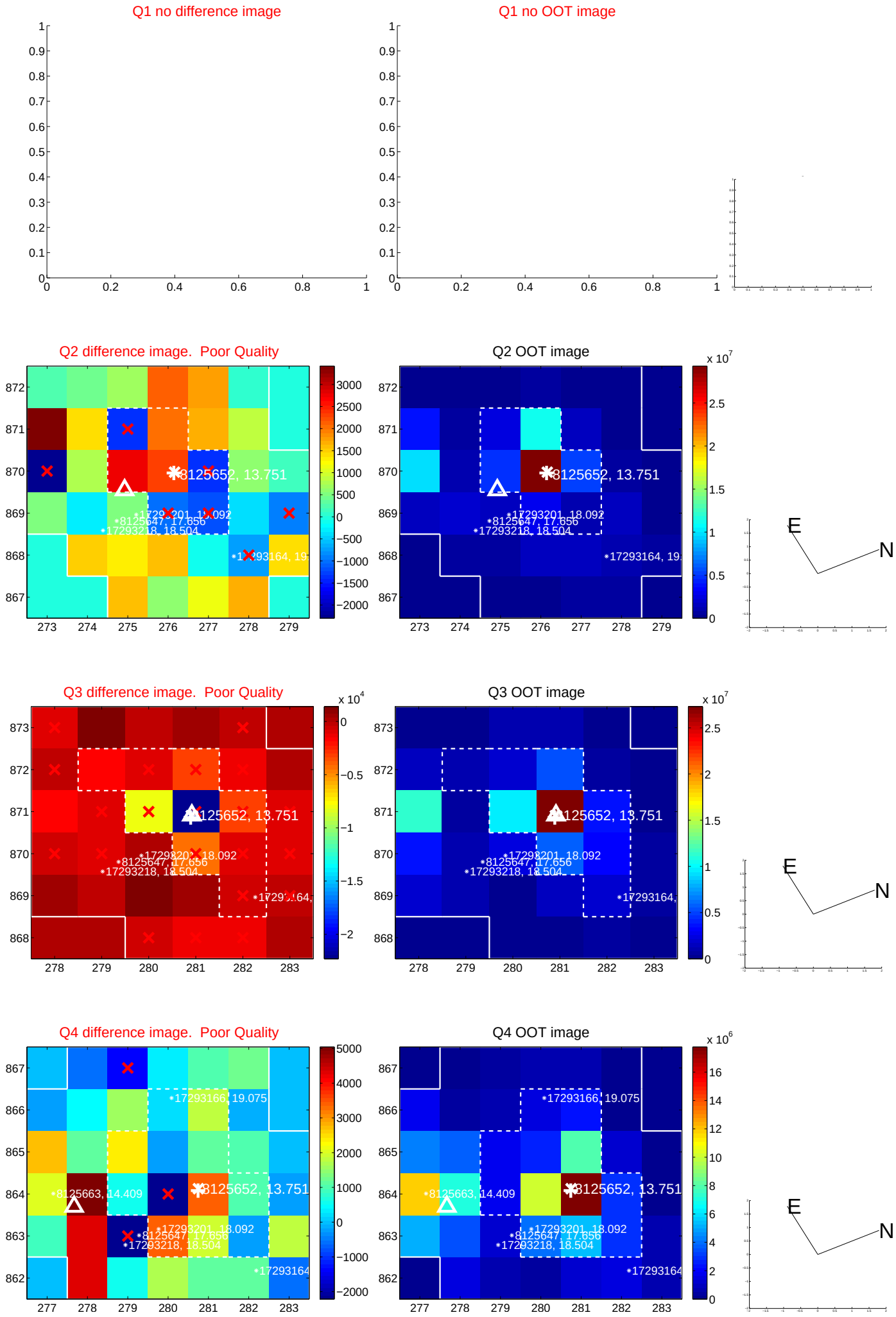
Supplemental centroid analysis for 008125652-03. Kepler magnitude: 13.75. Transit SNR 4.78
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.745 ± 1.264	0.59	0.587 ± 0.675	-0.458 ± 1.357
PRF-fit source offset from KIC position	0.784 ± 1.359	0.58	0.508 ± 0.616	-0.597 ± 1.362
photometric centroid source offset	3.00 ± 1.94	1.54	2.71 ± 1.92	1.27 ± 2.05

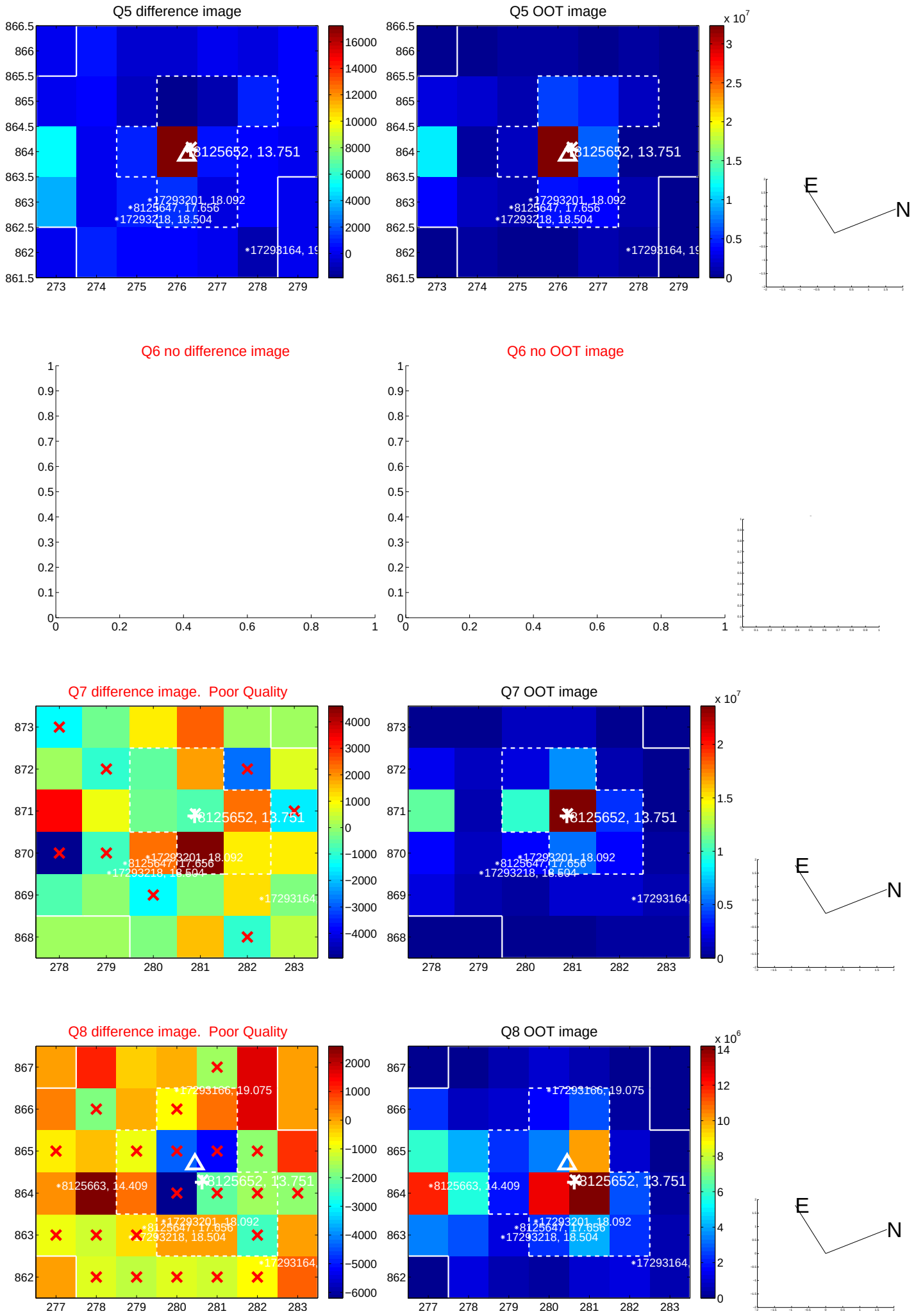


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

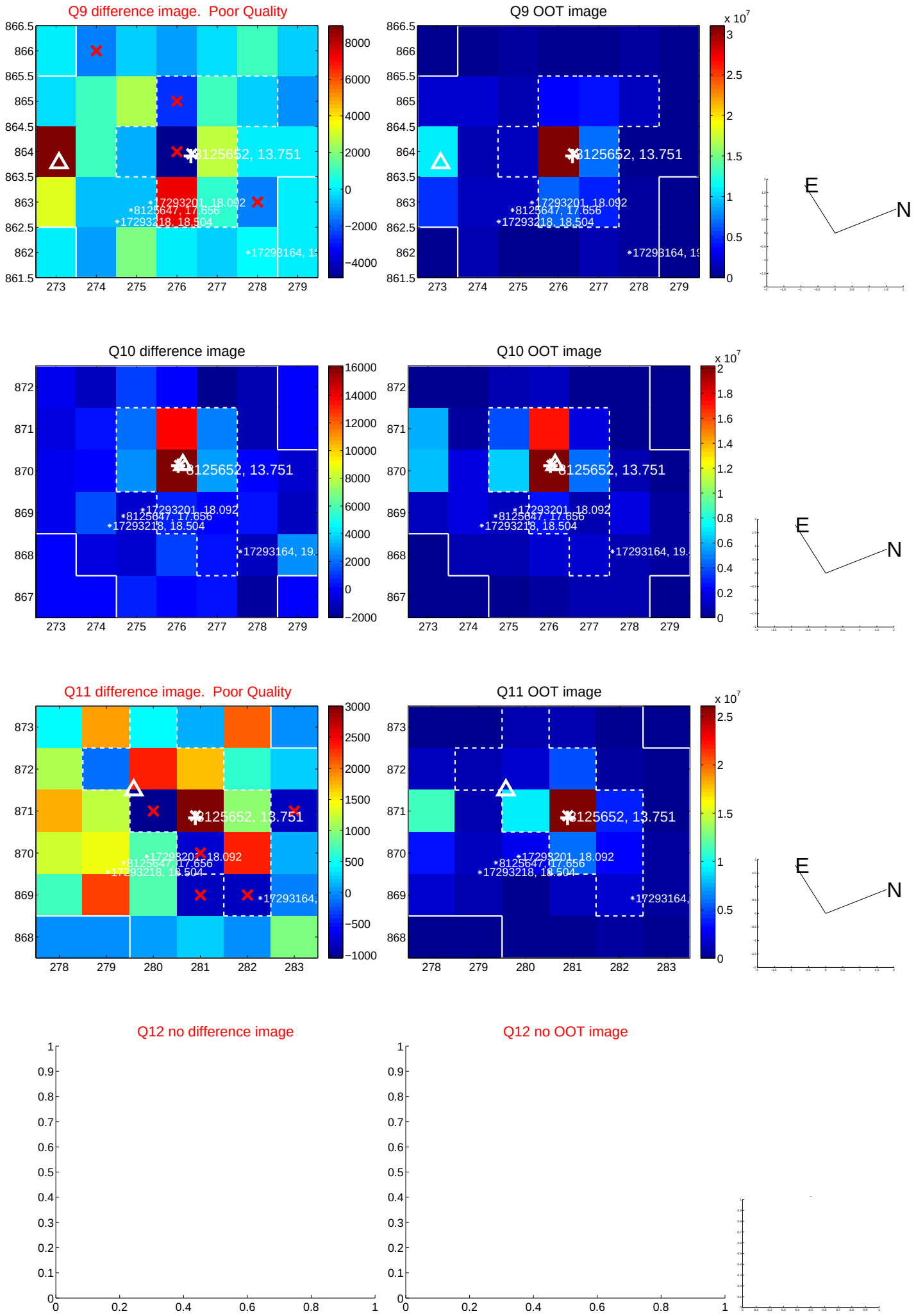
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



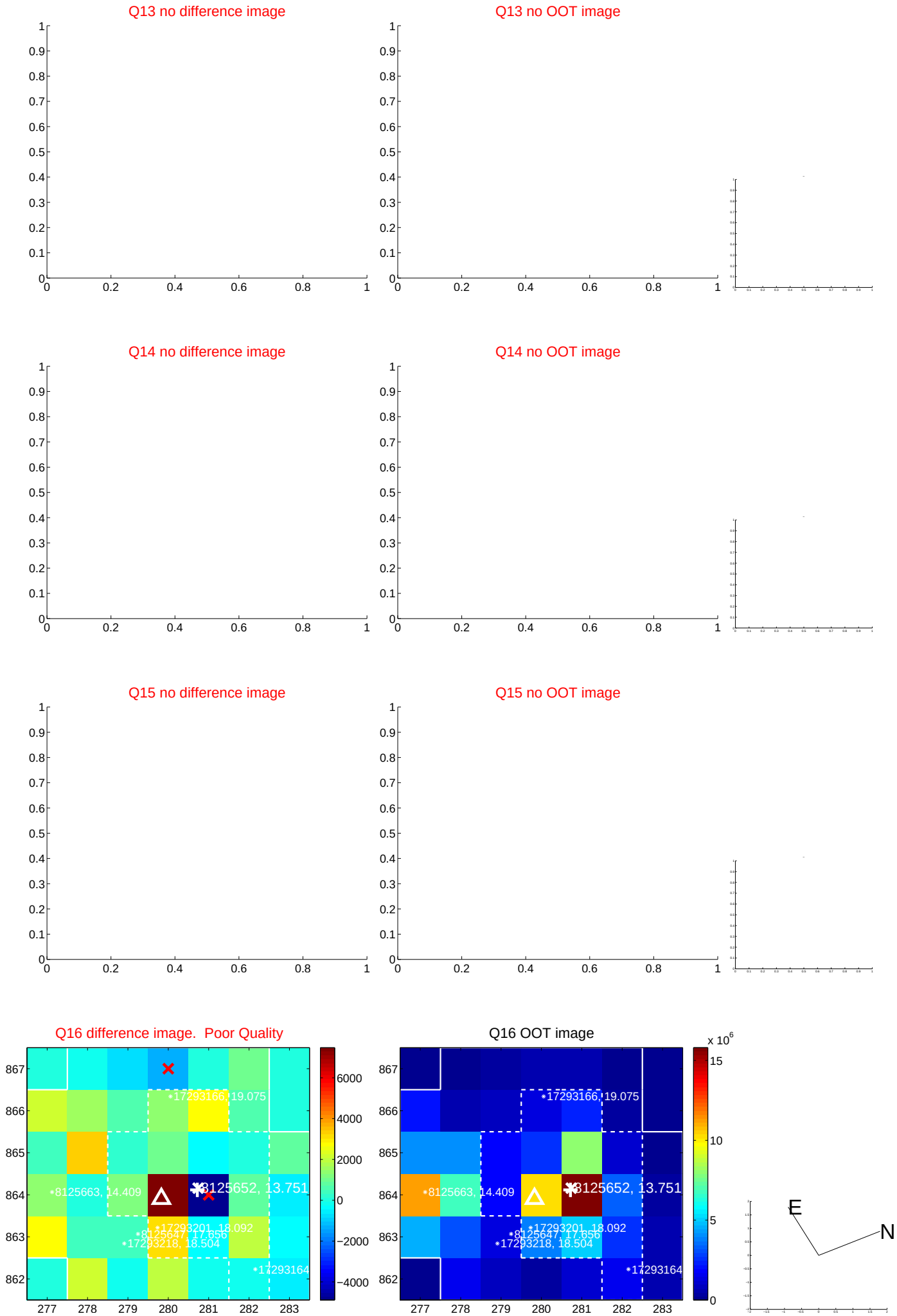
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



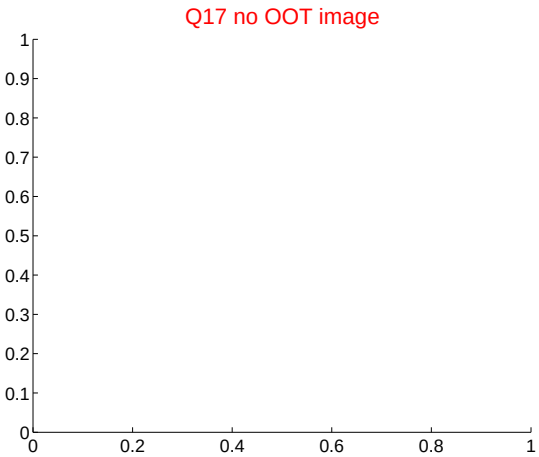
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

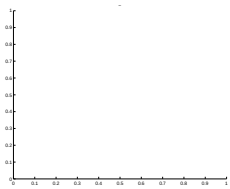


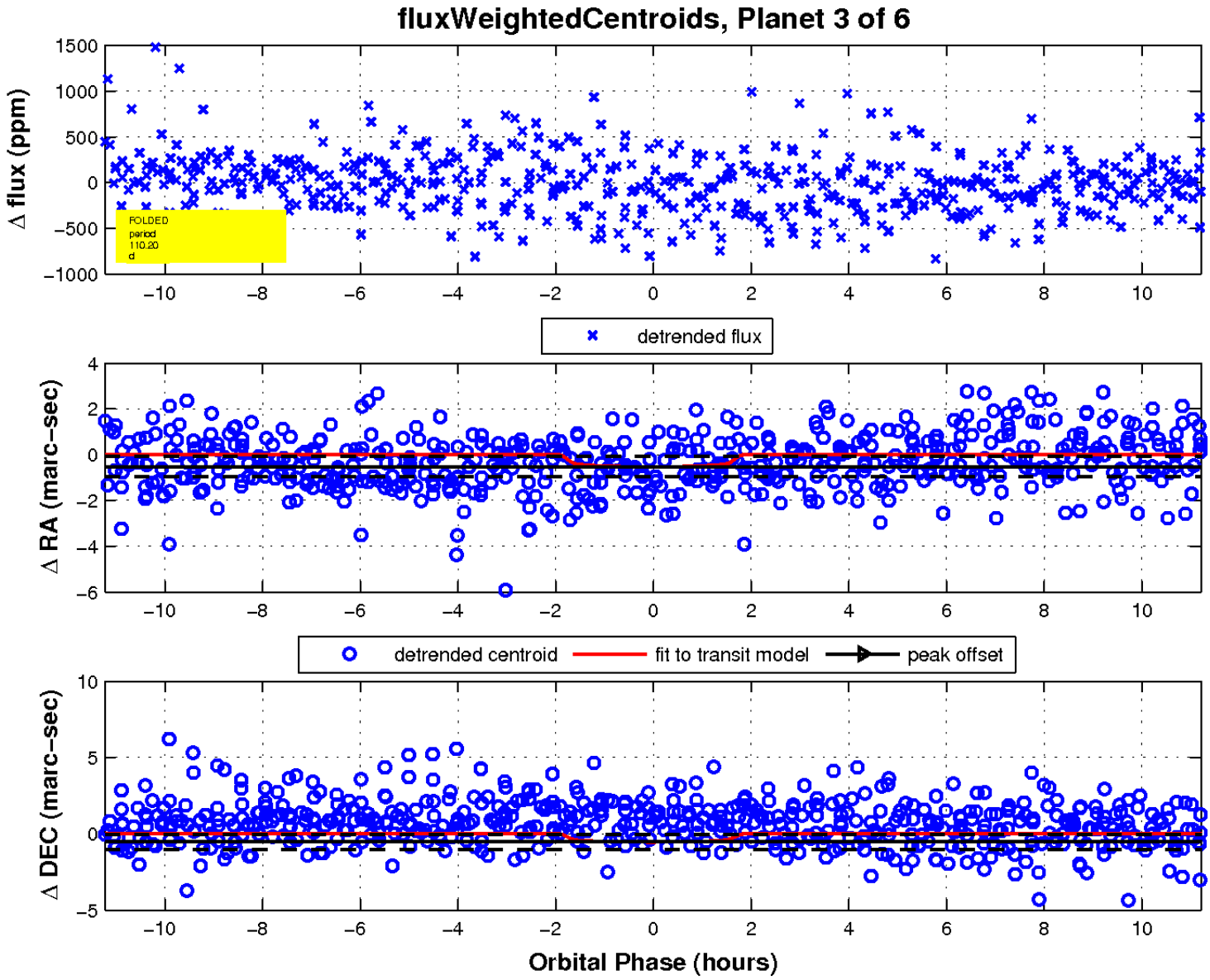
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



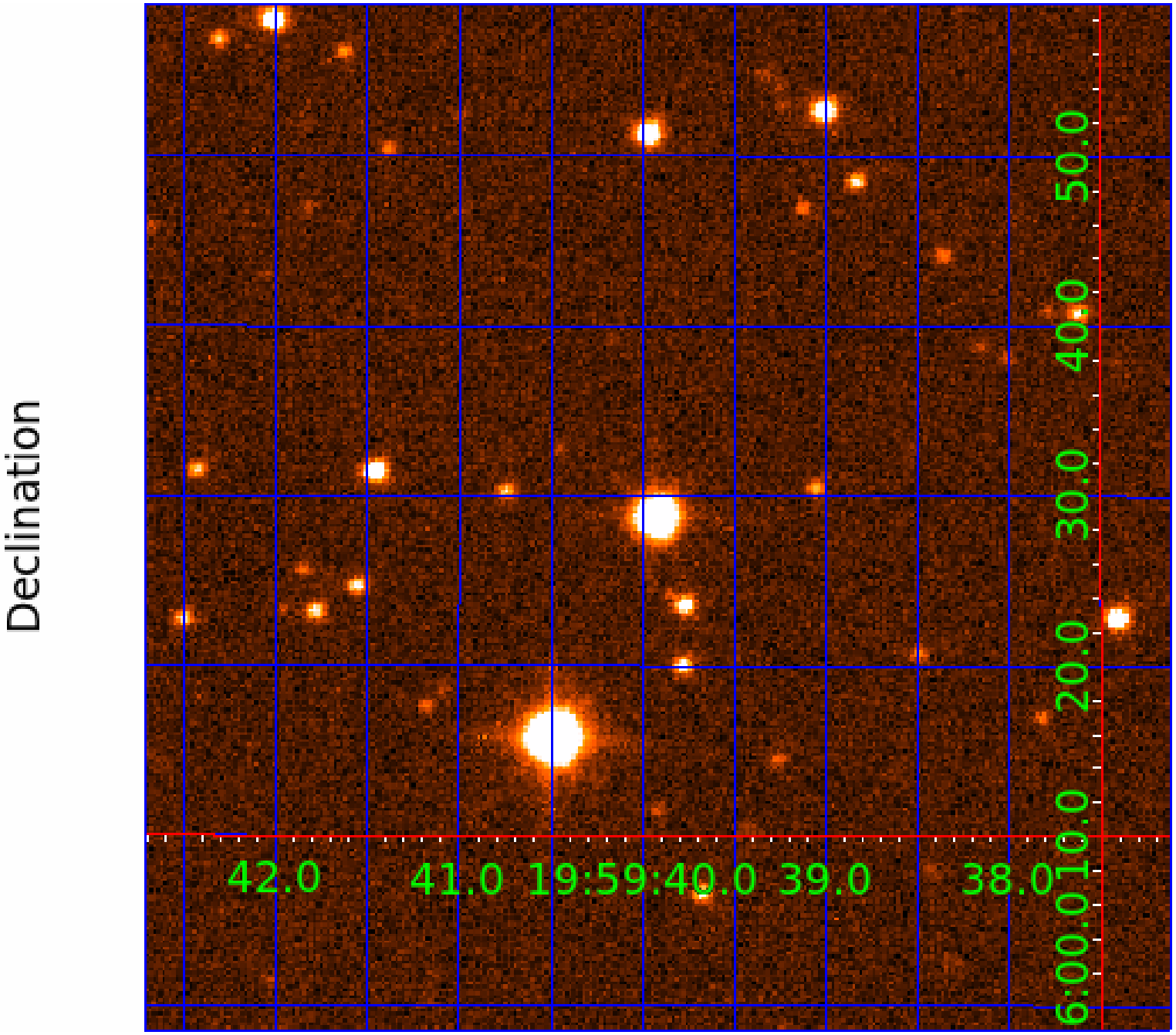
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image


Declination
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20.0
30.0
40.0
50.0

KIC 008125652

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 ($S_\oplus$)
008125652-01	OBS	No	3.182158	131.504873	0.0	18.631	9.8	0.0	2.45	6292	0.00	3841.77
008125652-02	OBS	No	28.727124	149.308878	353.3	21.161	9.6	10.9	2.45	6292	9.02	204.38
008125652-03	OBS	No	110.196326	205.240048	229.1	3.744	9.3	4.8	2.45	6292	4.33	34.04
008125652-04	OBS	No	110.811196	202.626594	257.3	12.500	9.1	-1.0	2.45	6292	3.94	33.78
008125652-05	OBS	No	132.025221	179.090211	365.9	3.115	8.4	8.0	2.45	6292	4.88	26.75
008125652-06	OBS	No	145.168027	268.471453	350.6	8.490	7.3	6.9	2.45	6292	5.07	23.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008125652-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV
008125652-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
008125652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
008125652-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

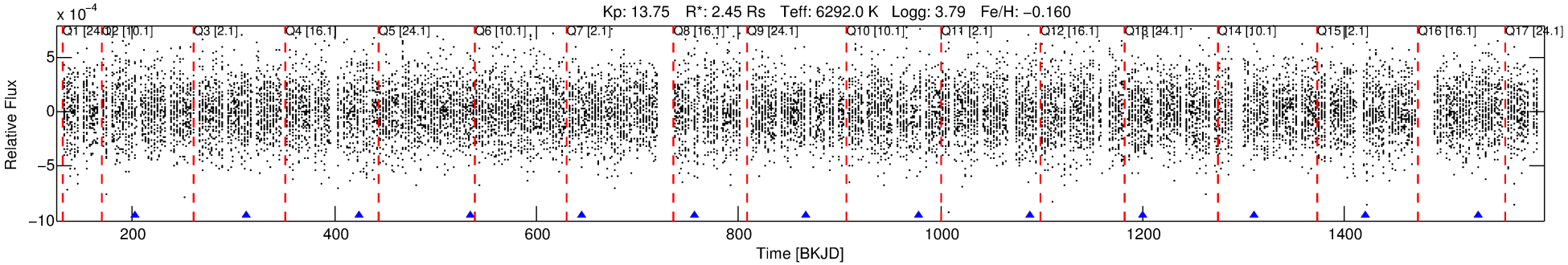
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

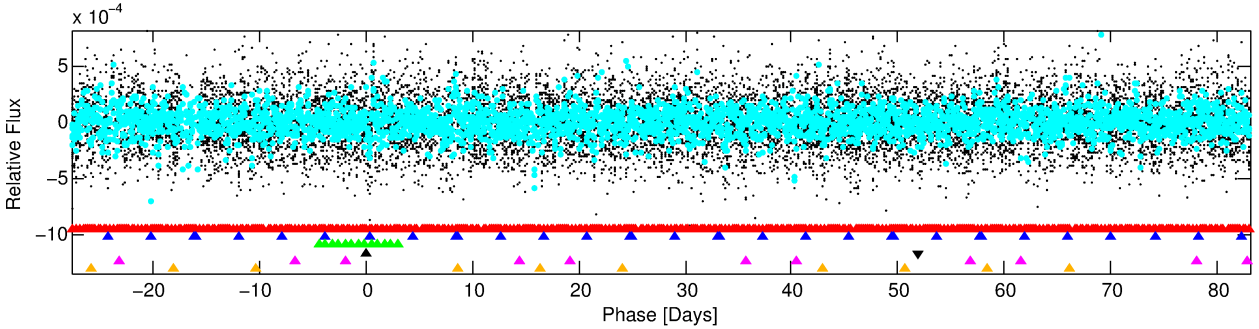
Ephemeris Match Information For 008125652-04

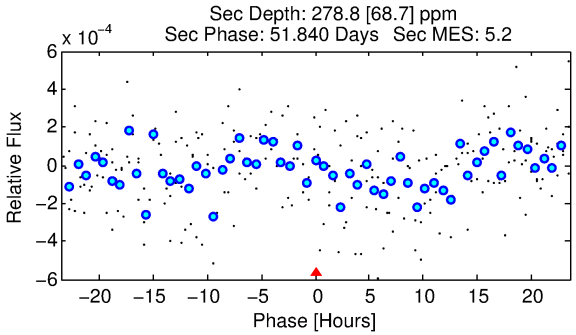
No Significant Match Found

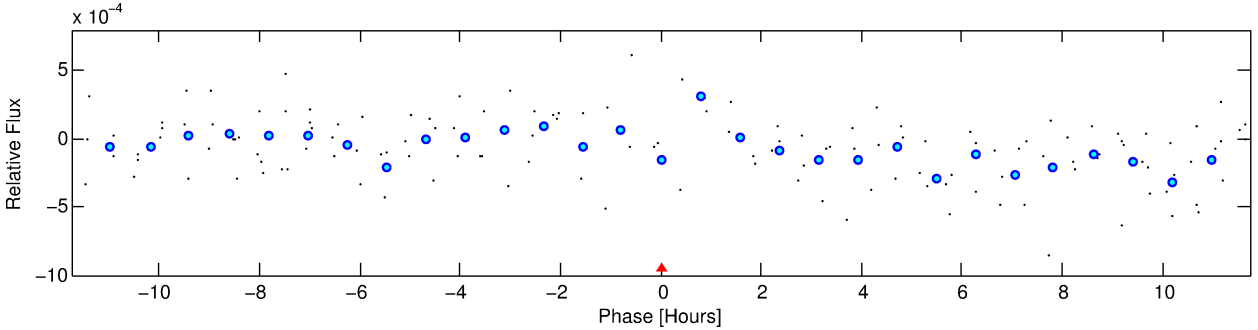
DV One-Page Summary

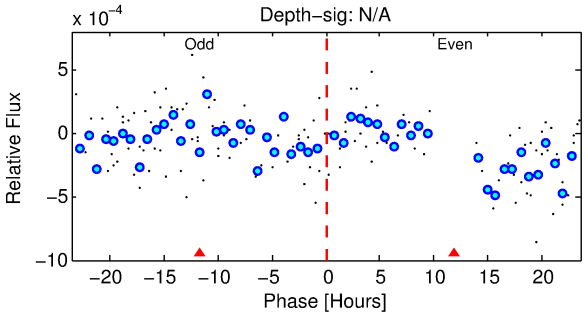
KIC: 8125652 Candidate: 4 of 6 Period: 110.811 d

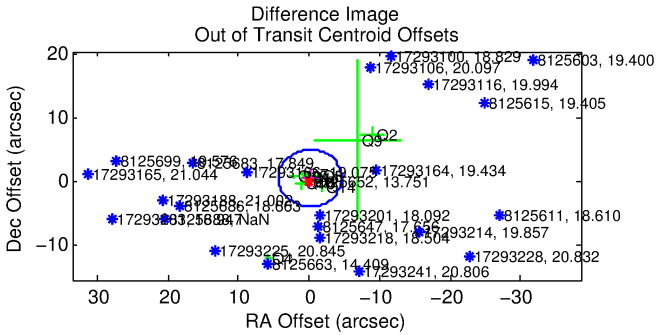












TPS TCE Results:

Period = 110.81120 d
Epoch = 202.6266 BKJD

DV fit results are unavailable

DV Diagnostic Results:

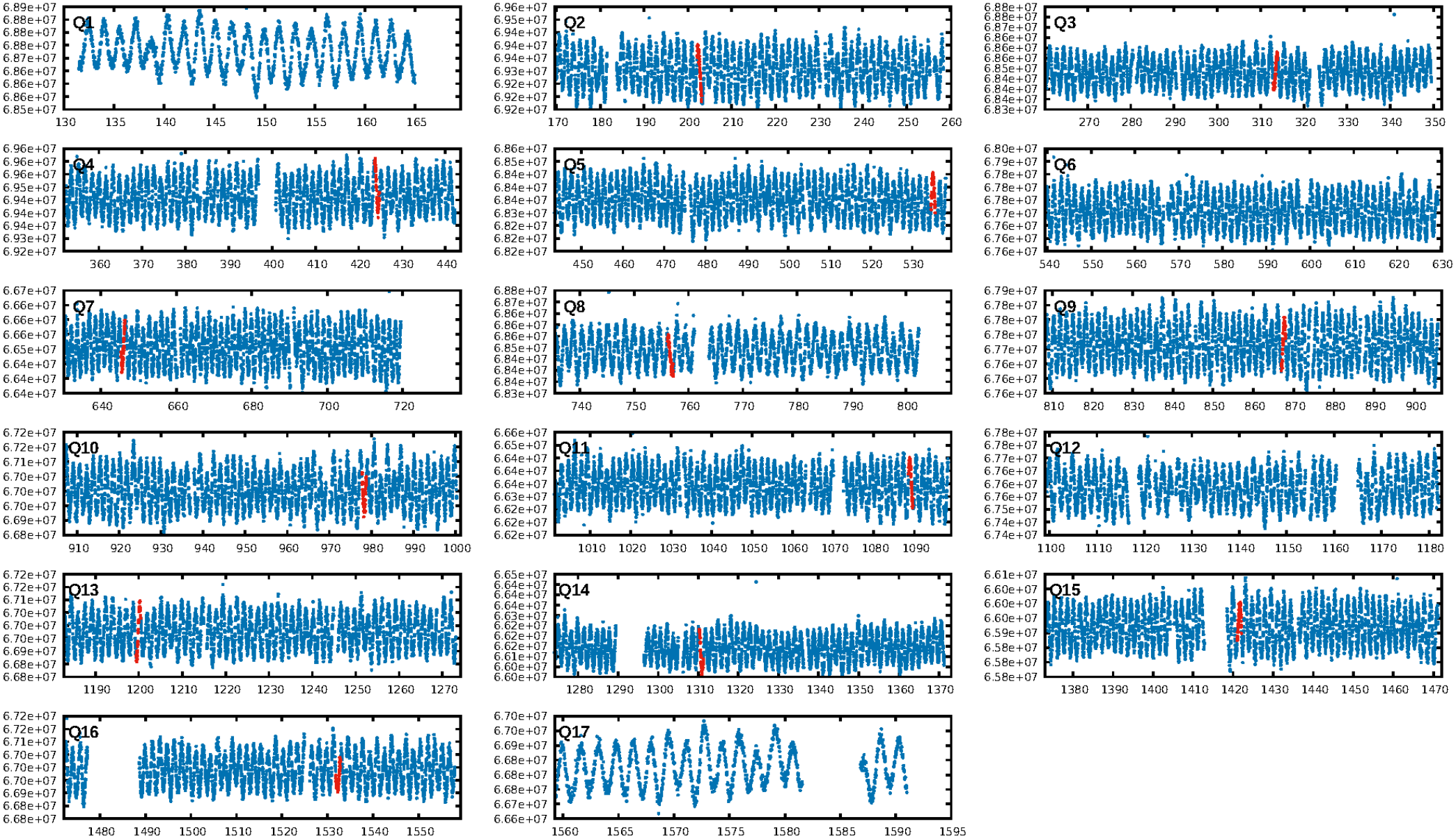
ShortPeriod−sig: 74.2% [1.13σ]
LongPeriod−sig: 100.0% [39.52σ]
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: 1.51e−07
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 0.3604

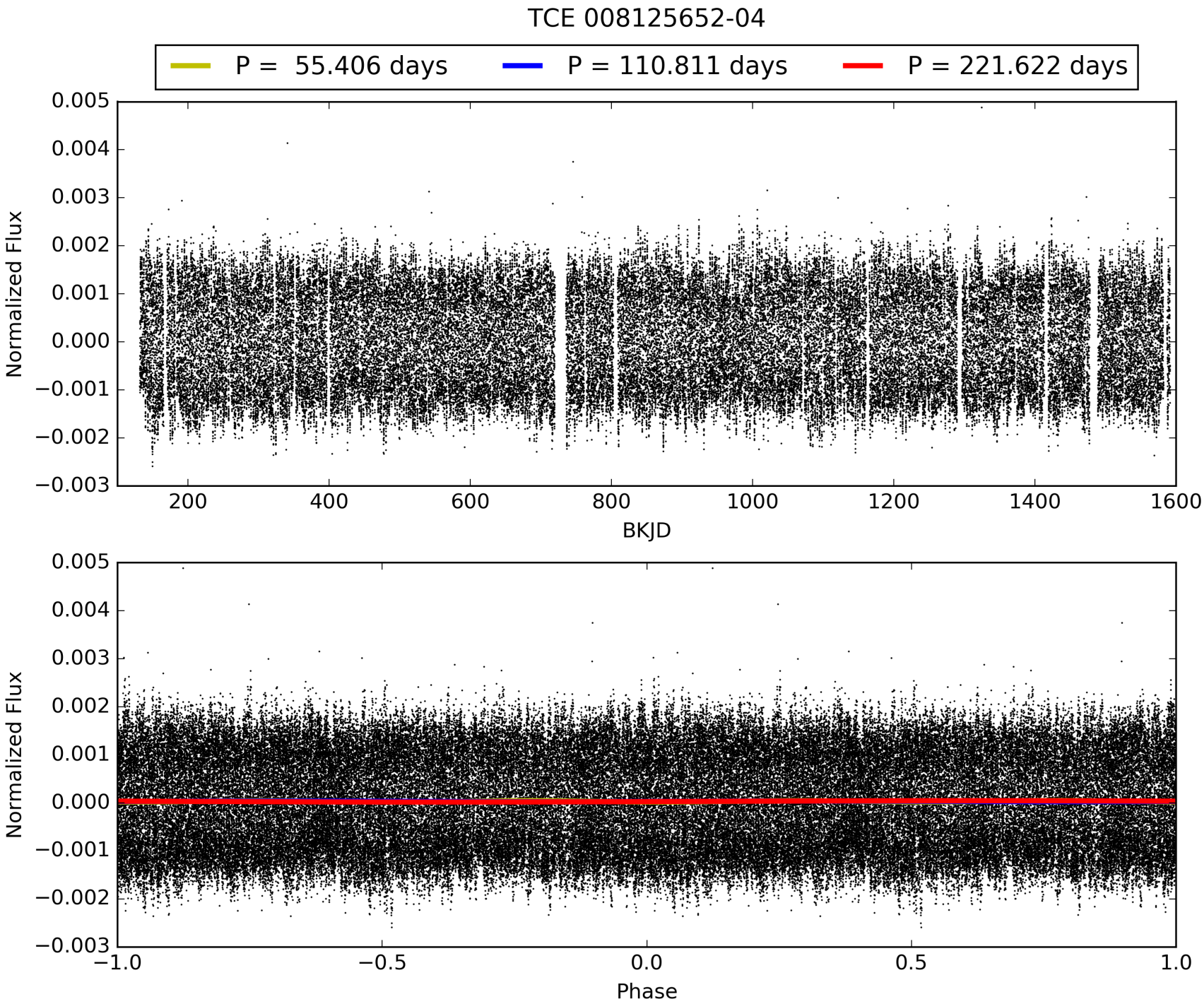
Centroid−sig: 72.0%
Centroid−so: 1.312 arcsec [3.20σ]
OotOffset−rm: 0.576 arcsec [0.38σ]
KicOffset−rm: 0.526 arcsec [0.31σ]
OotOffset−st: 3/3/3/2 [11]
KicOffset−st: 3/3/3/2 [11]
DiffImageQuality−fgm: 0.27 [3/11]
DiffImageOverlap−fno: 0.42 [5/12]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 31−Jan−2016 10:48:03 Z

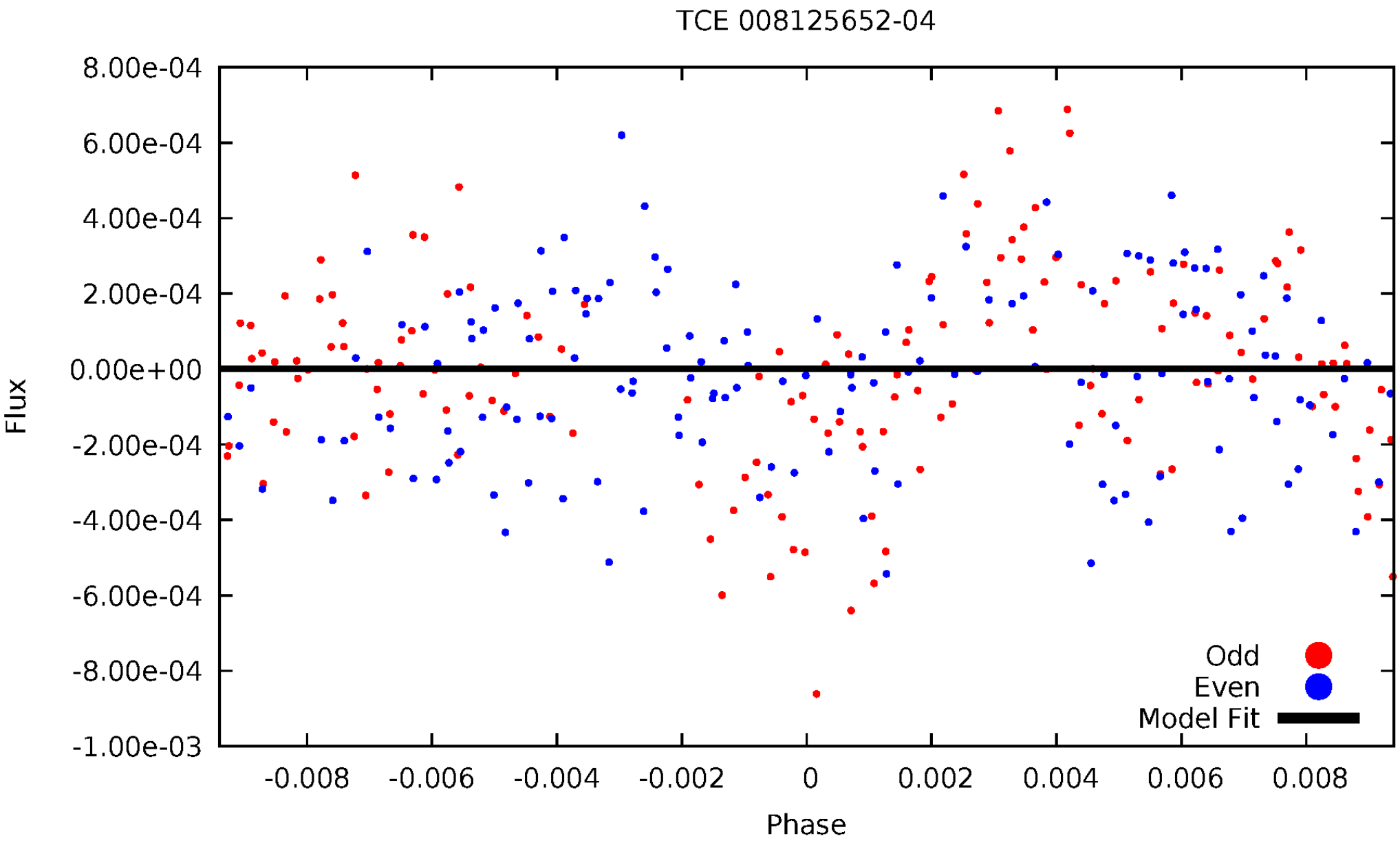
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008125652-04, PDC Light Curves

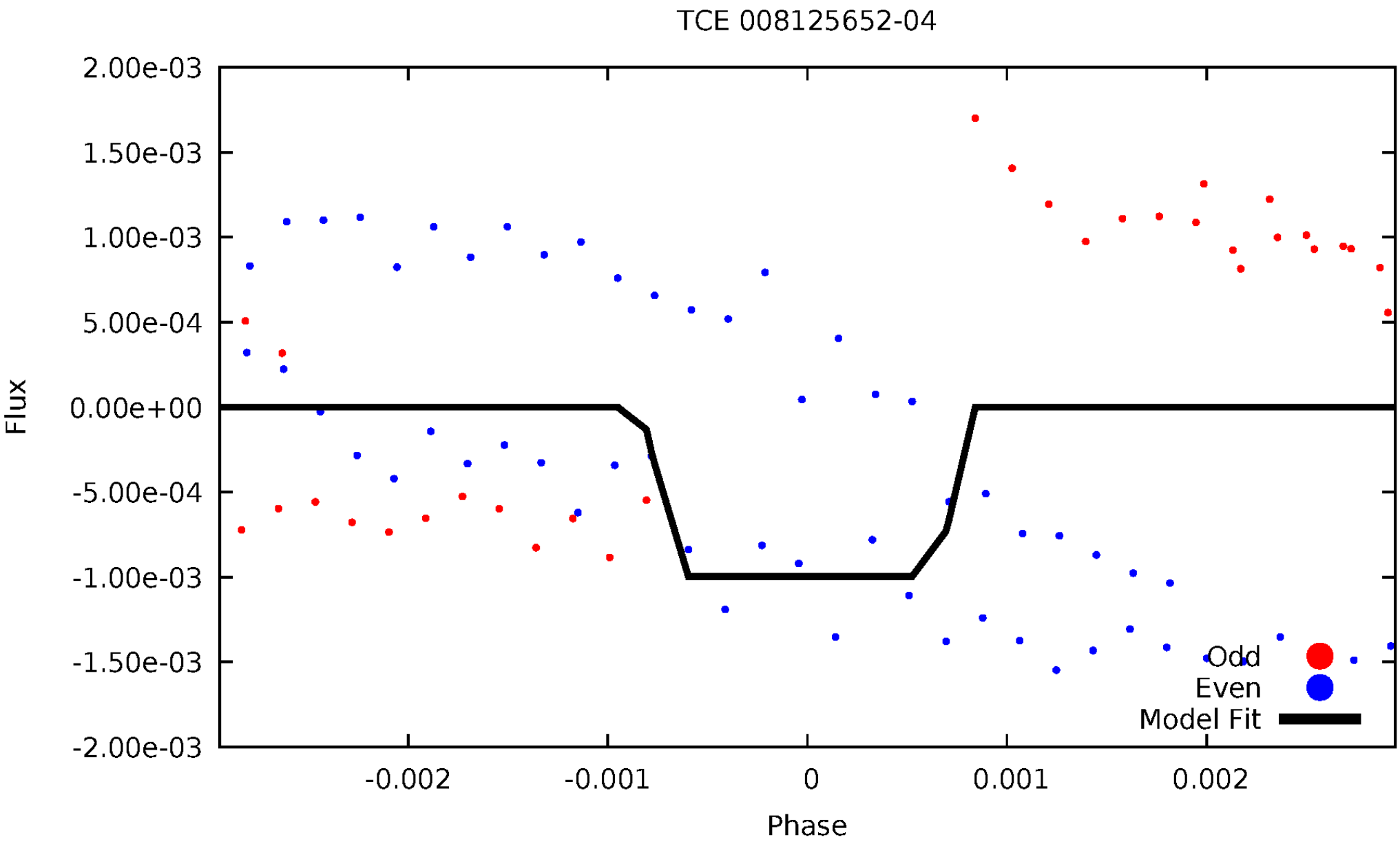



TCE 008125652-04
P = 55.406 days
P = 110.811 days
P = 221.622 days
Normalized Flux
BKJD
Phase

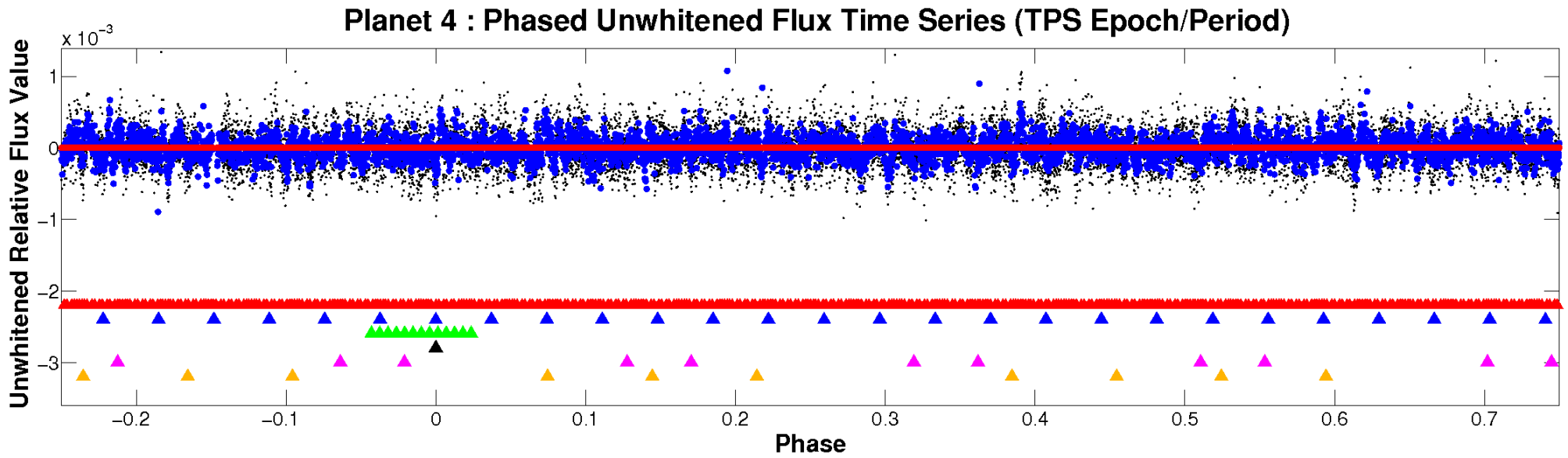
DV Odd/Even

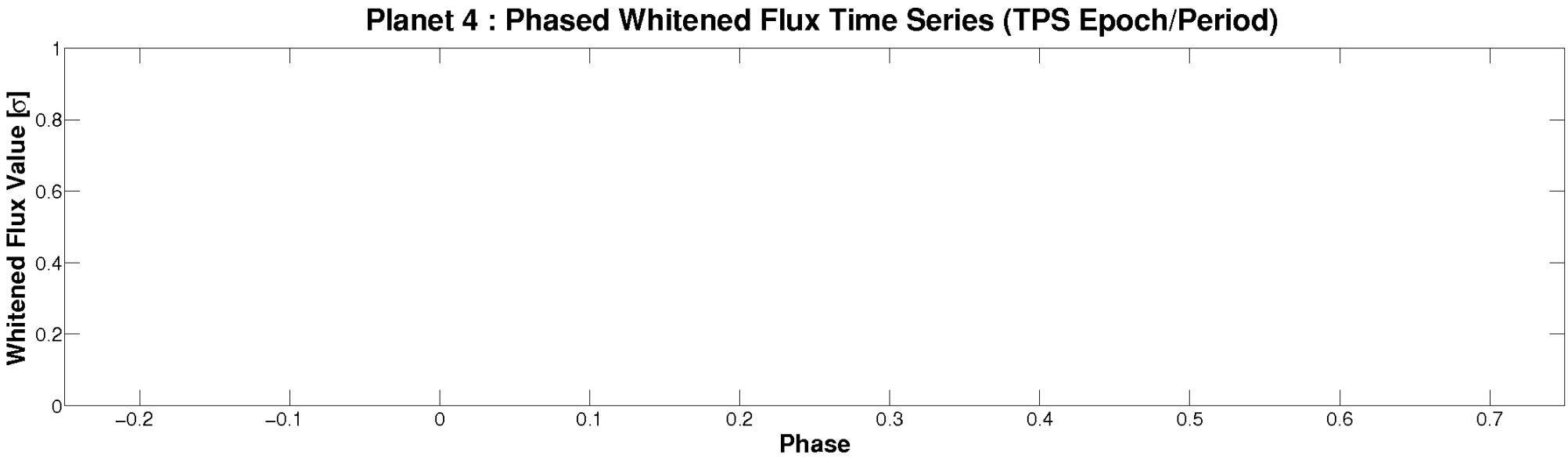

TCE 008125652-04
8.00e-04
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
-1.00e-03
Flux
-0.008
-0.006
-0.004
-0.002
0
0.002
0.004
0.006
0.008
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 008125652-04
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
-0.002
-0.001
0
0.001
0.002
Phase
Odd
Even
Model Fit

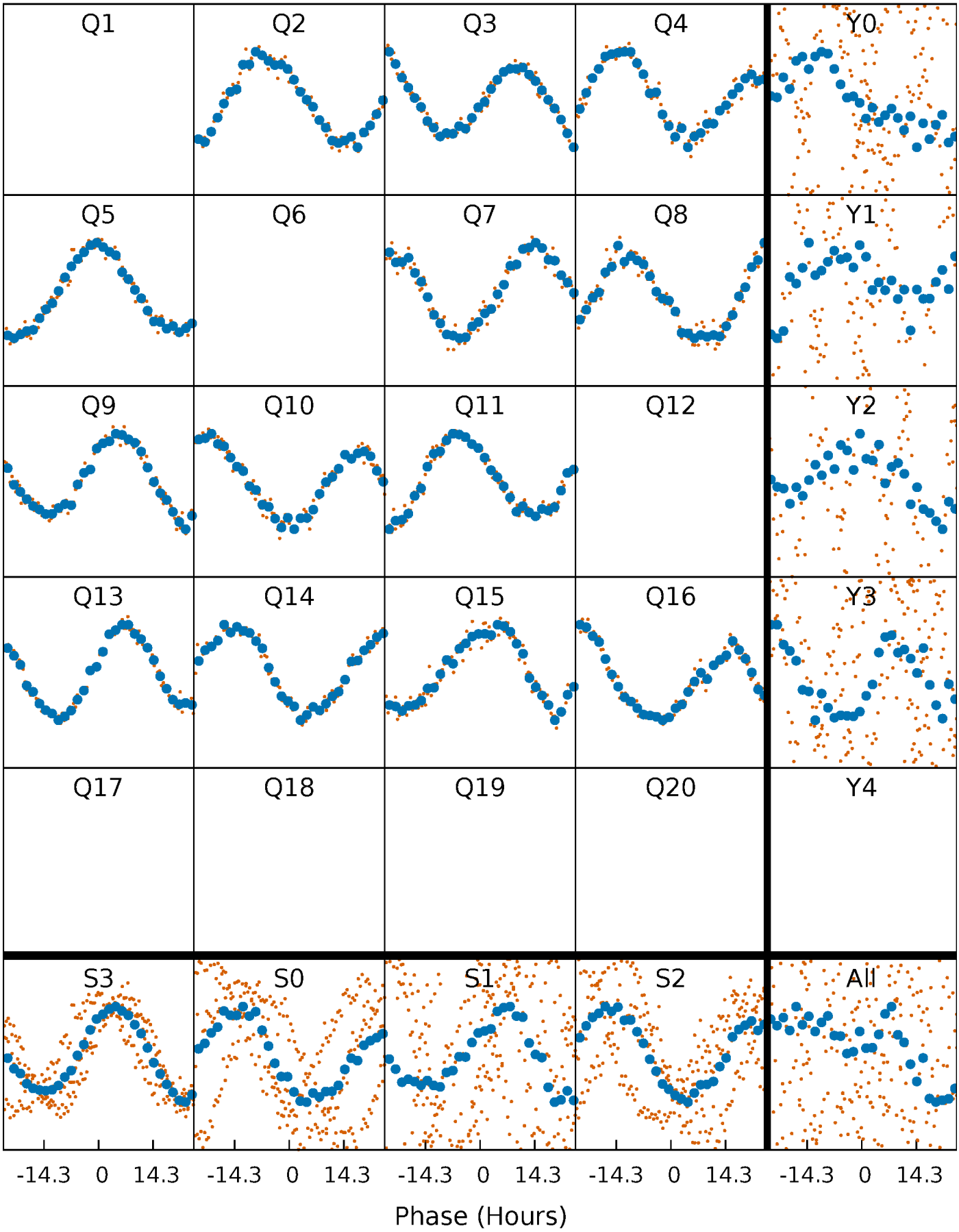
Non-Whitened Vs. Whitened Light Curve





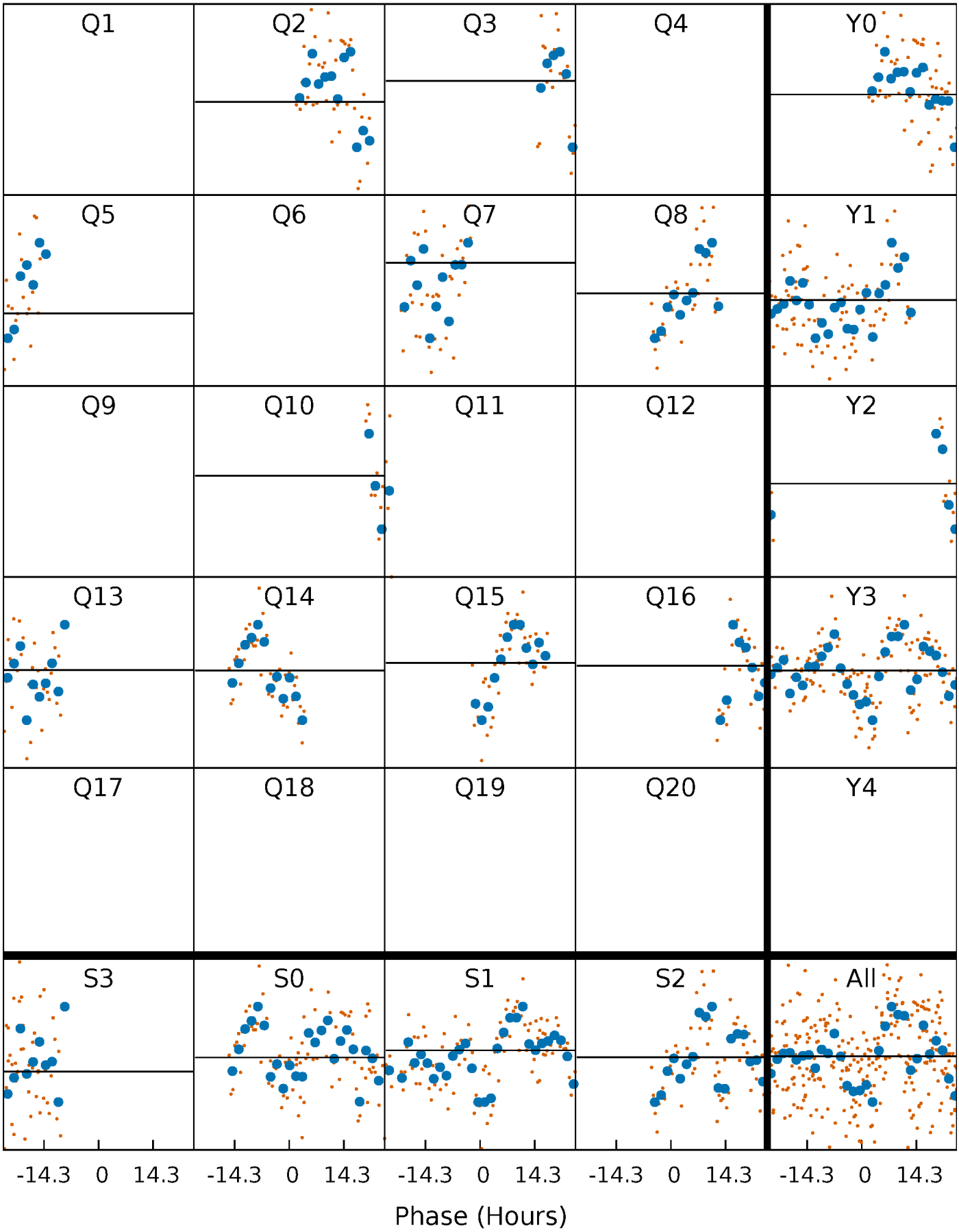
PDC Quarter-Phased Transit Curves

TCE 008125652-04 P=110.811196 Days T_0=202.626594 (BKJD)



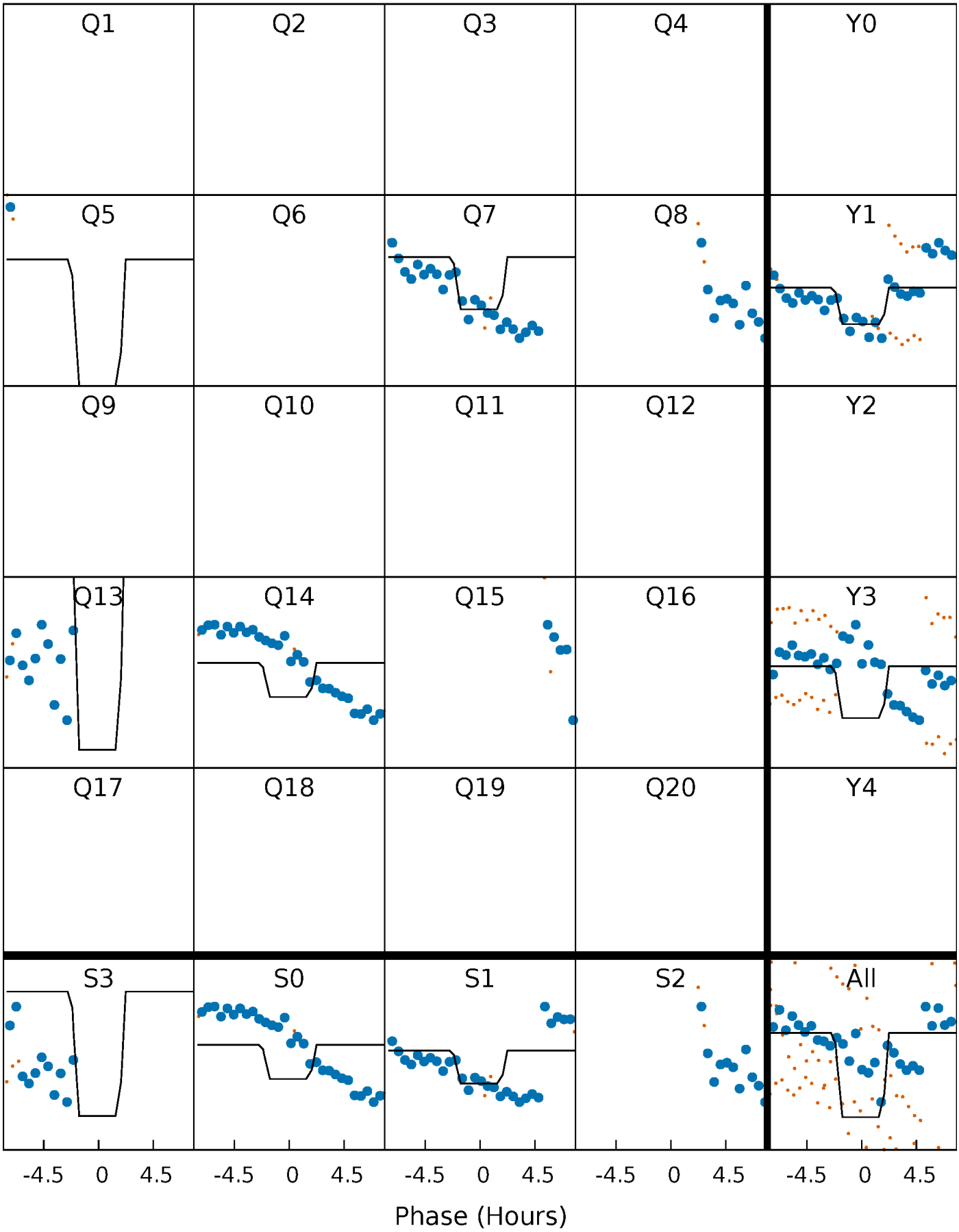
DV Quarter-Phased Transit Curves

TCE 008125652-04 P=110.811196 Days T_0=202.626594 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

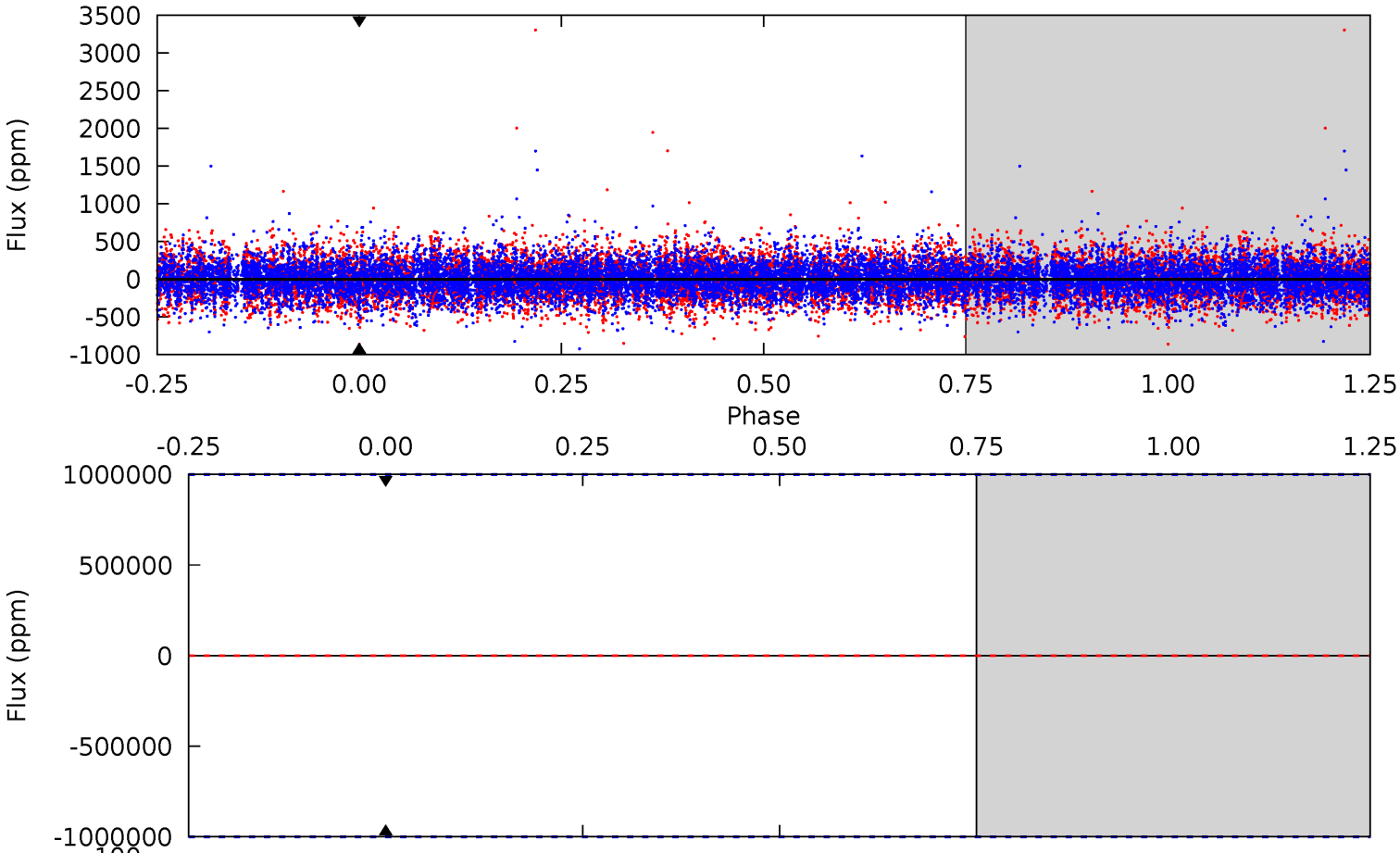
TCE 008125652-04 P=110.811196 Days T_0=202.321735 (BKJD)

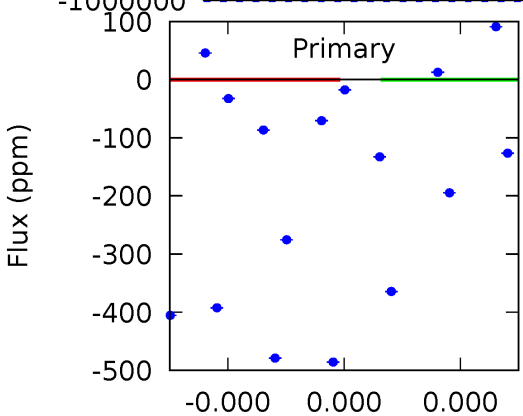


DV Model-Shift Uniqueness Test

008125652-04, P = 110.811196 Days, E = 91.815398 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0

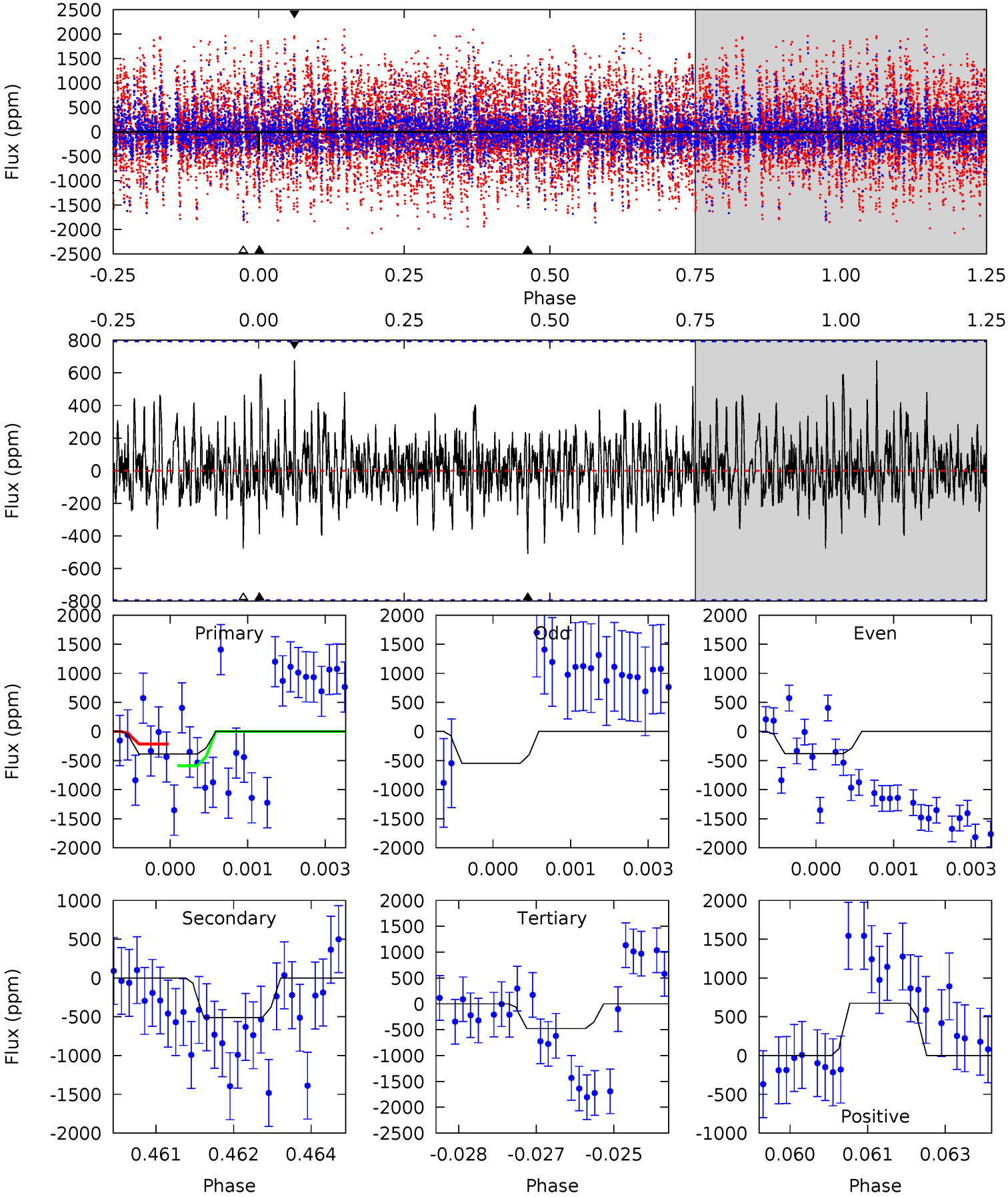




Alt Model-Shift Uniqueness Test

008125652-04, P = 110.811196 Days, E = 91.510539 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.62	3.46	3.23	4.57	5.38	3.18	0.96	-0.62	-1.95	0.22	-1.11	0.61	1.00	0.57	1.26



Stellar Parameters For KIC 008125652

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6292^{+203}_{-225}	$3.791^{+0.488}_{-0.122}$	$-0.160^{+0.300}_{-0.300}$	$2.450^{+0.513}_{-1.281}$	$1.354^{+0.218}_{-0.327}$	$0.130^{+0.716}_{-0.050}$
	+3%/-4%	+13%/-3%	+188%/-188%	+21%/-52%	+16%/-24%	+552%/-38%
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 008125652-04 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0±1000000	$17.86^{+20.36}_{-12.61}$	837^{+69}_{-108}	-5976^{+29324}_{-20344}	$-1806.838^{+74853.345}_{-83673.755}$
Alt.	-510±148	$18.85^{+19.75}_{-12.94}$	835^{+68}_{-111}	3712^{+2054}_{-693}	193^{+1674}_{-147}

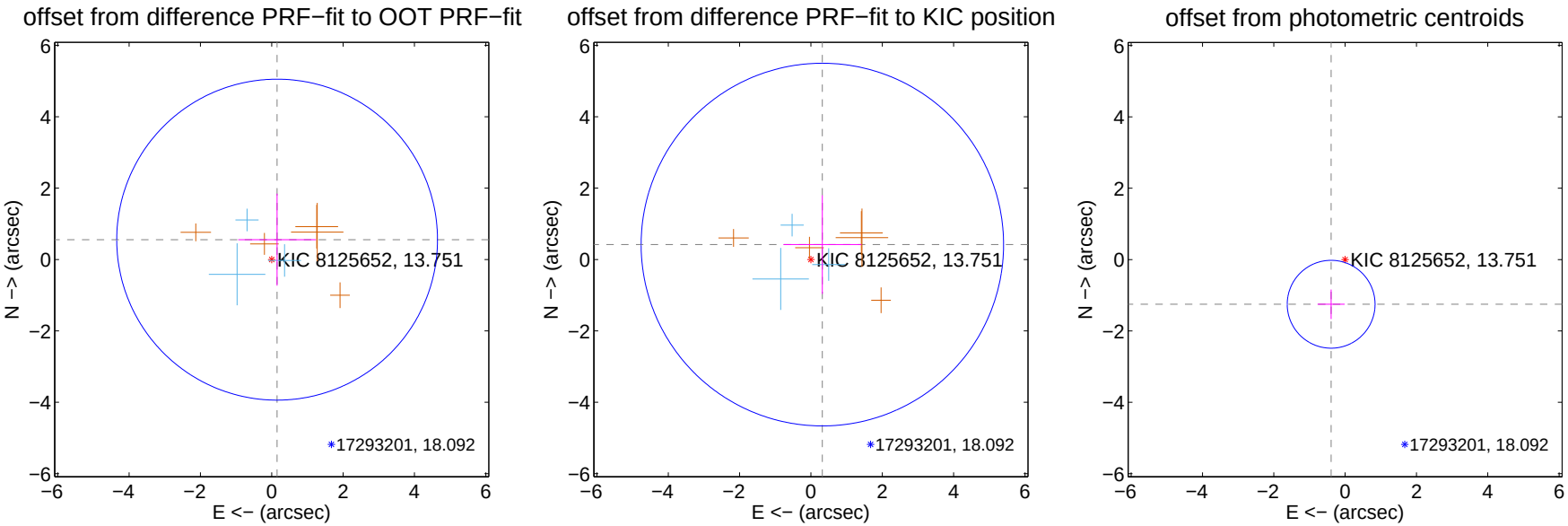
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

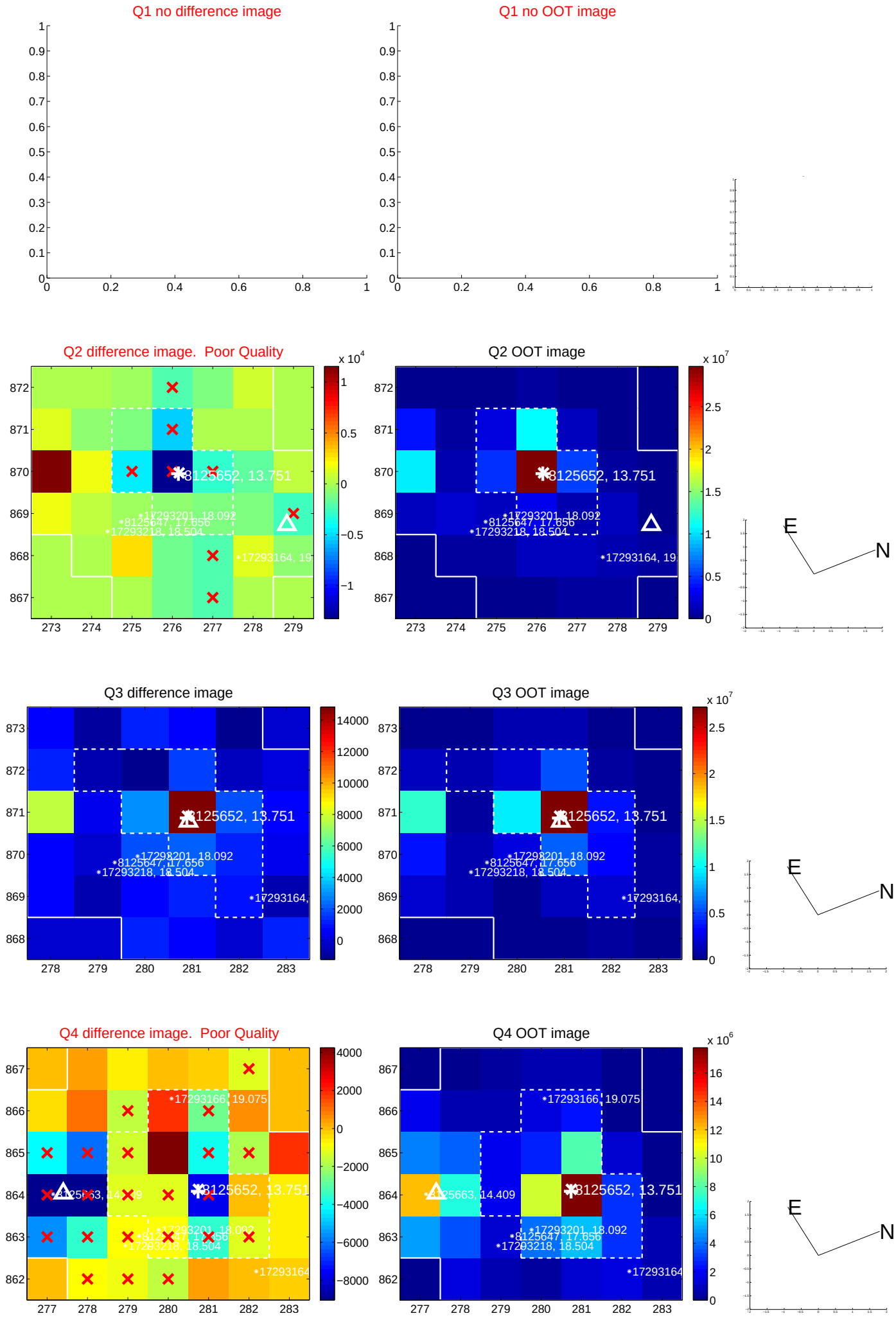
Supplemental centroid analysis for 008125652-04. Kepler magnitude: 13.75. Transit SNR -1.00
There are 3 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.576 ± 1.499	0.38	-0.150 ± 1.089	0.556 ± 1.290
PRF-fit source offset from KIC position	0.526 ± 1.693	0.31	-0.319 ± 1.093	0.418 ± 1.381
photometric centroid source offset	1.31 ± 0.41	3.20	0.39 ± 0.38	-1.25 ± 0.41

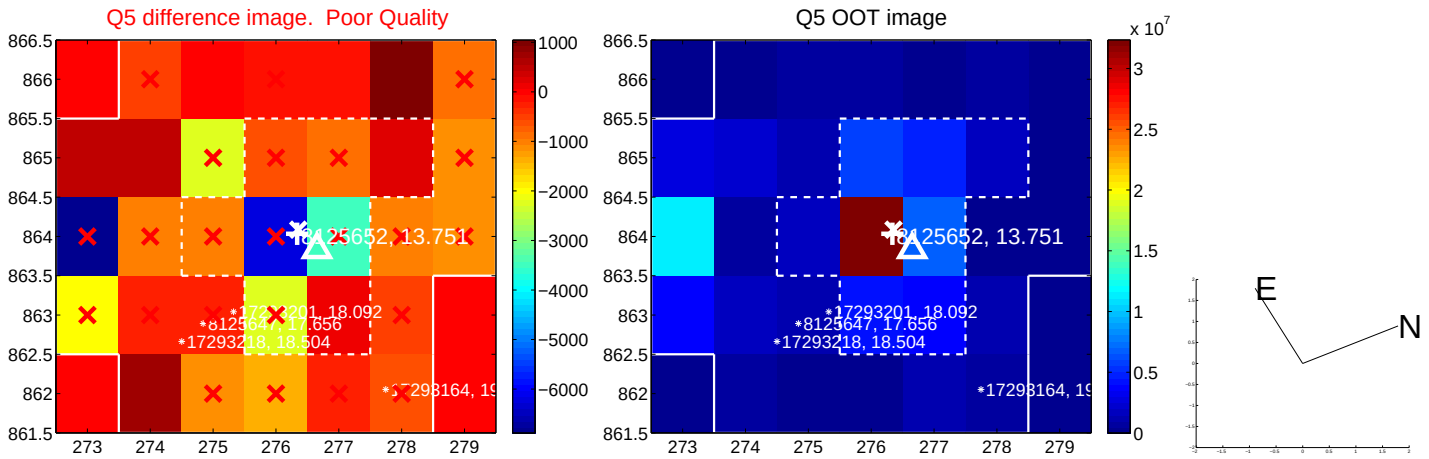


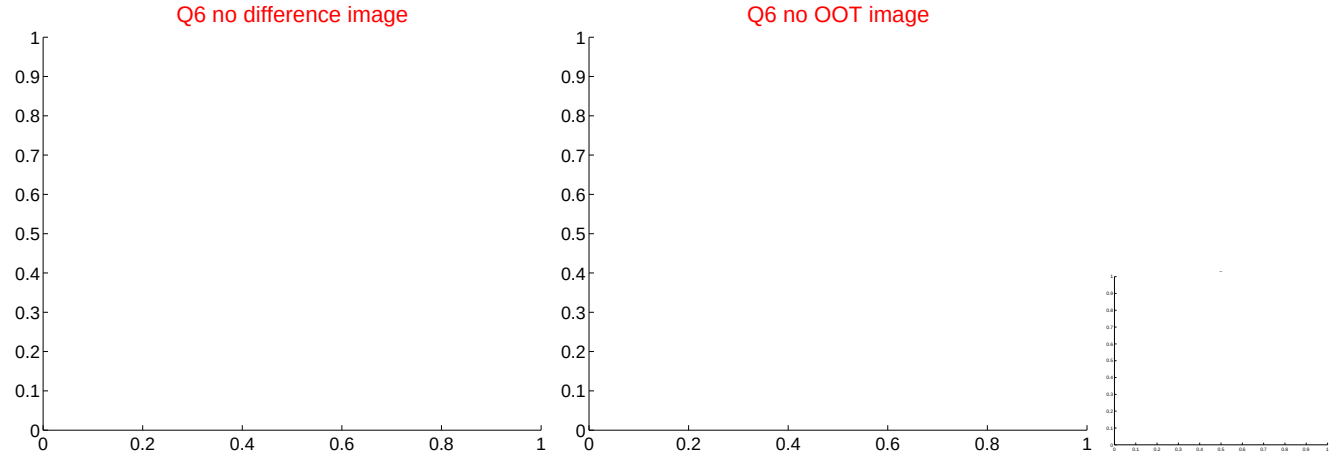
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

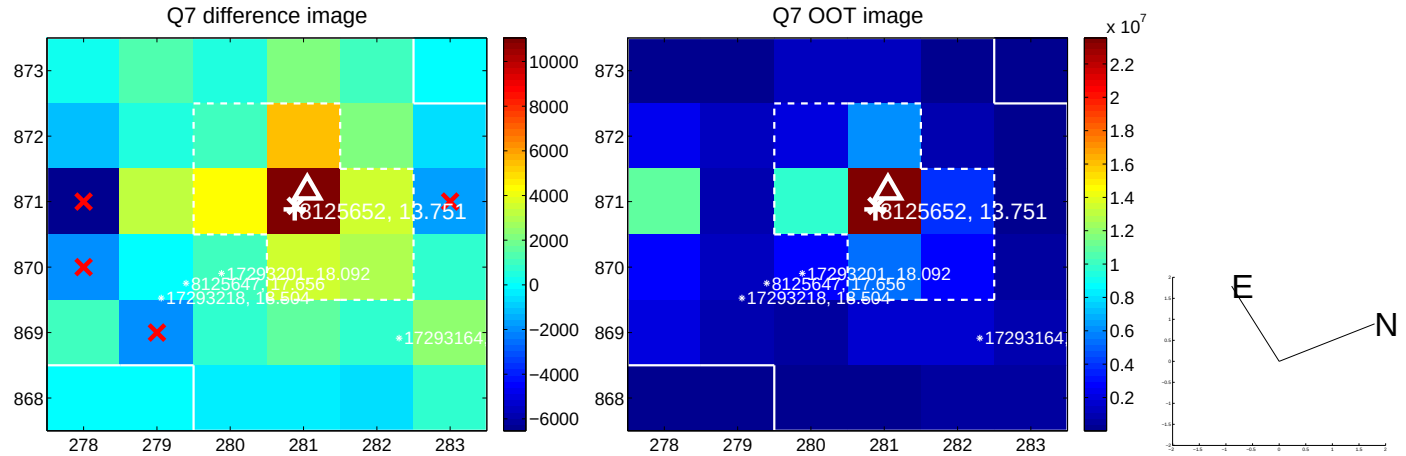
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

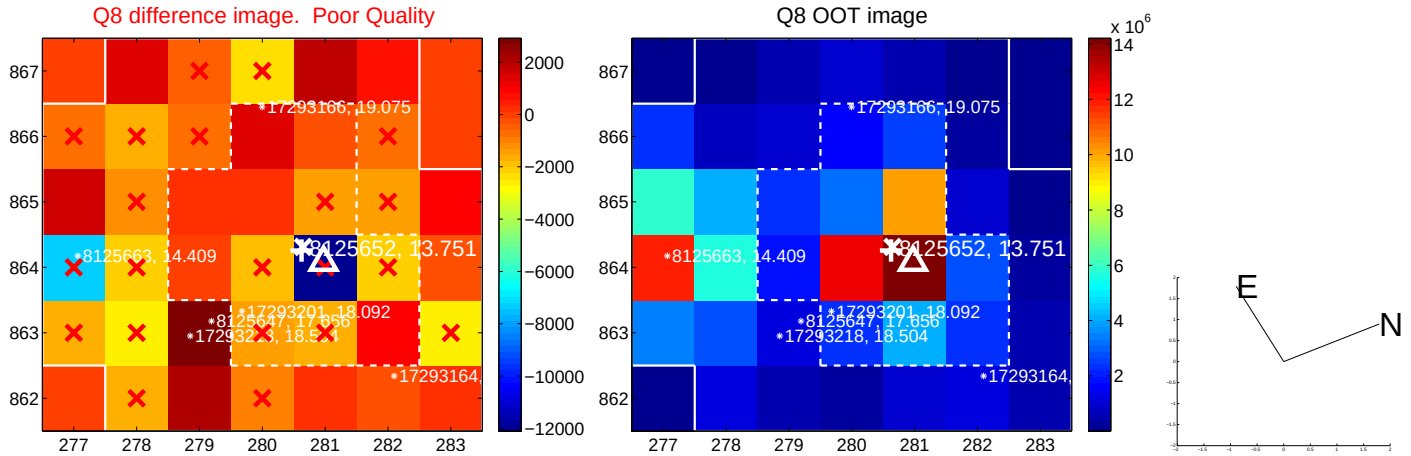


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

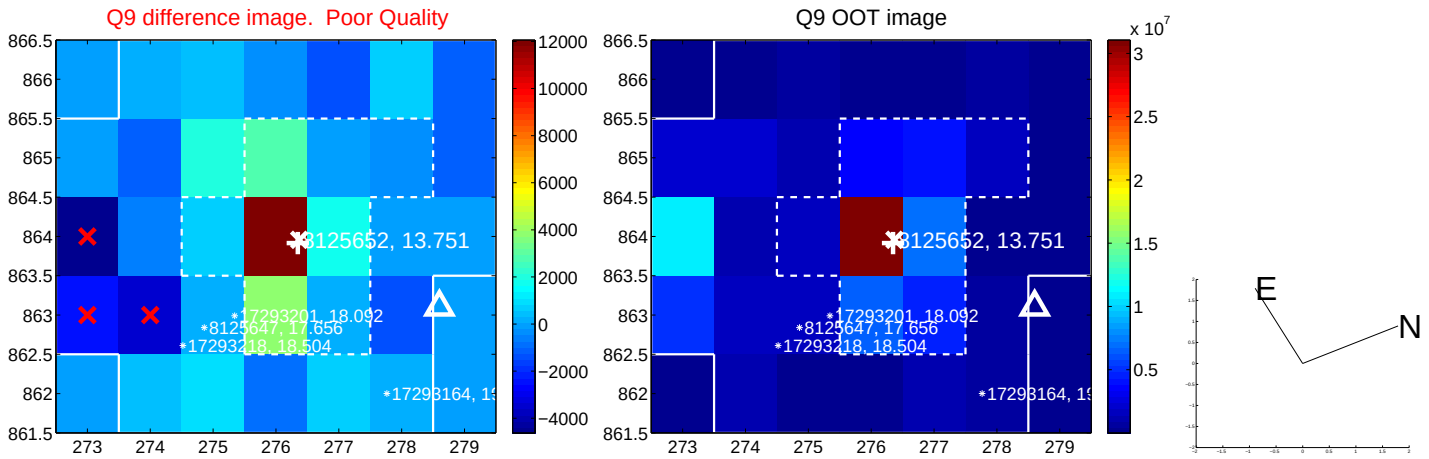


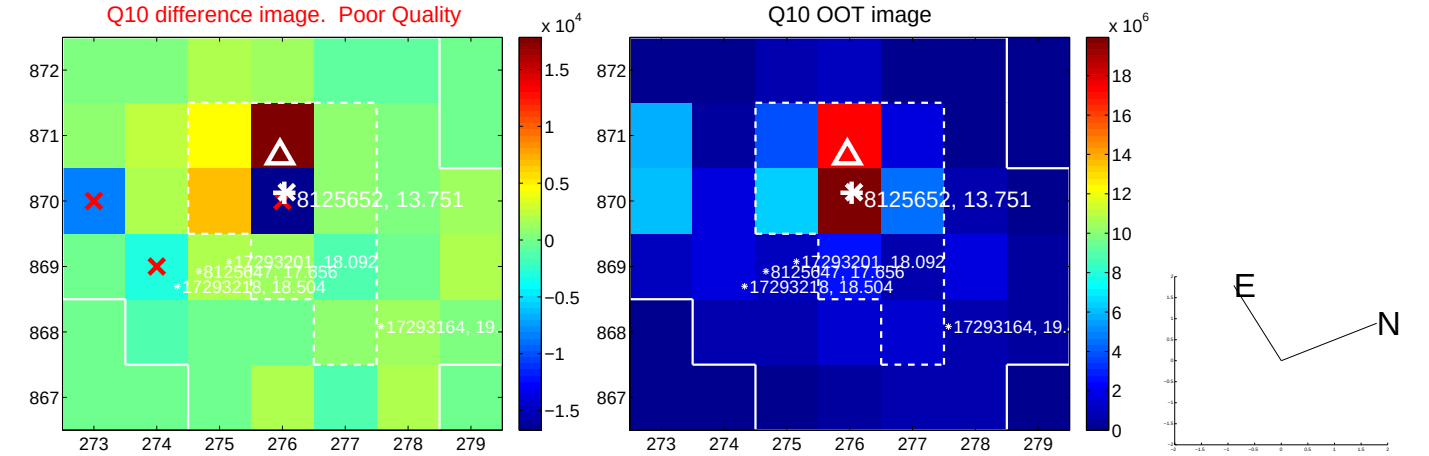


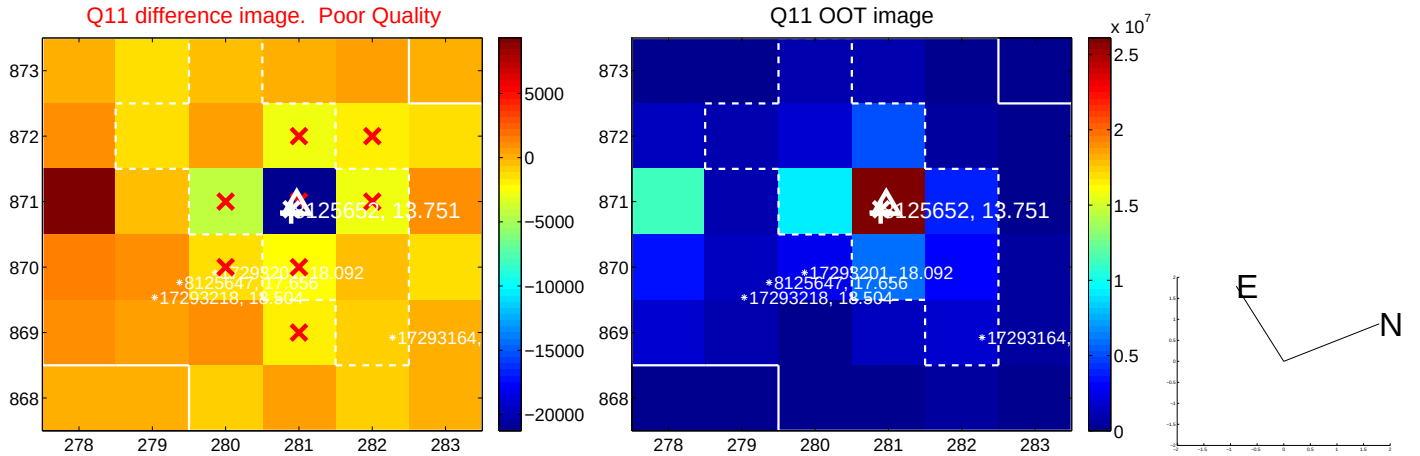




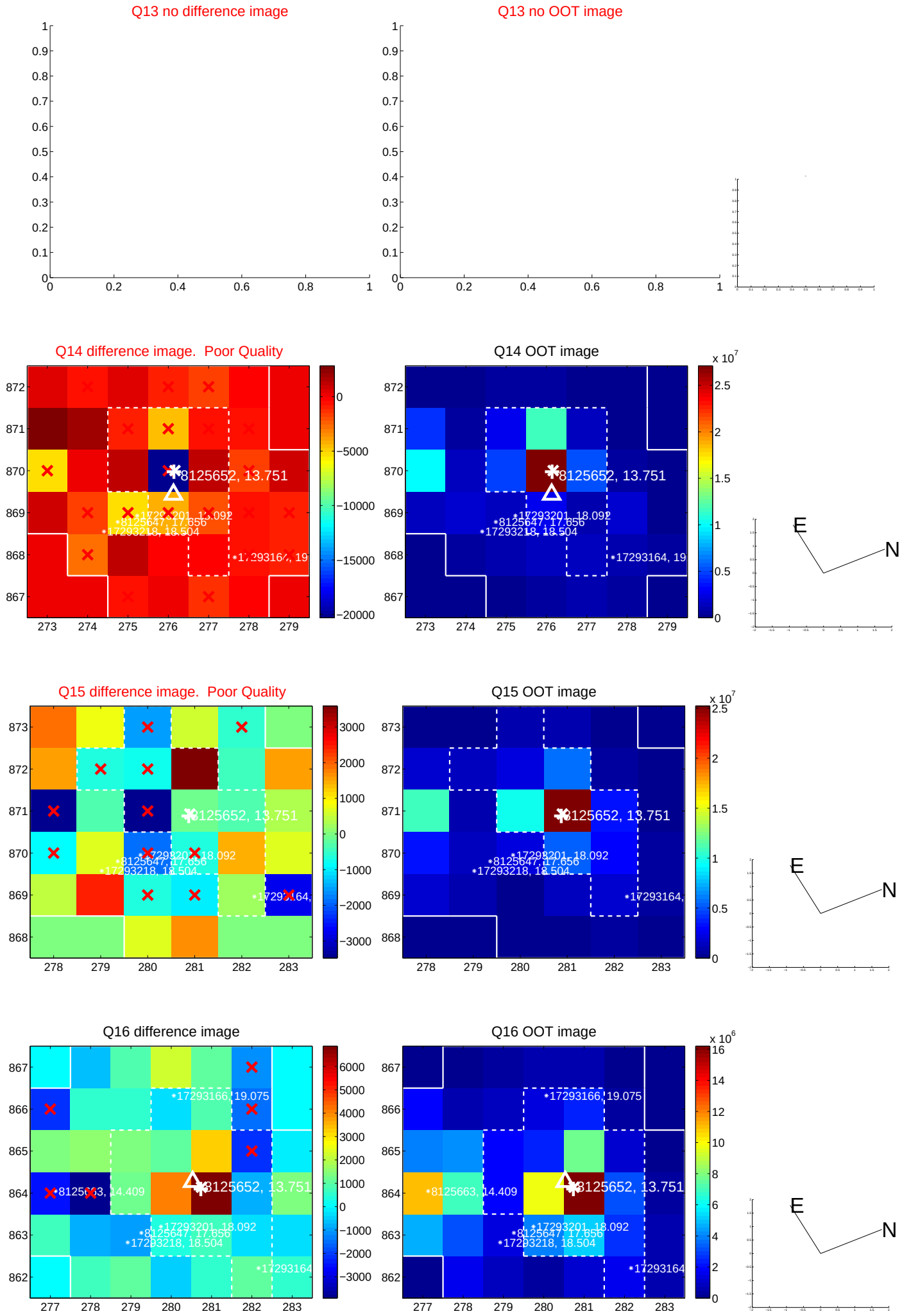
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



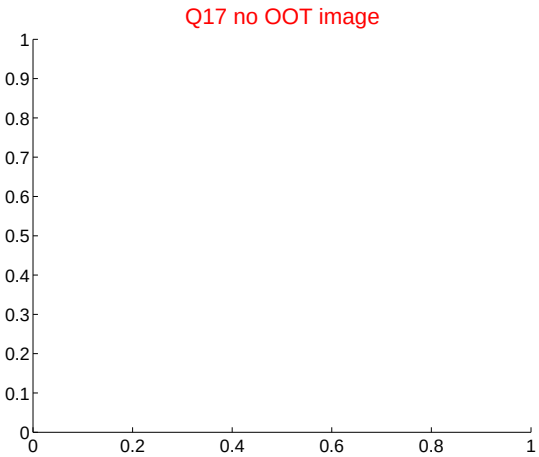


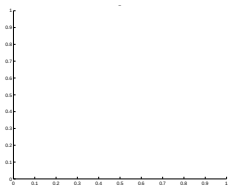


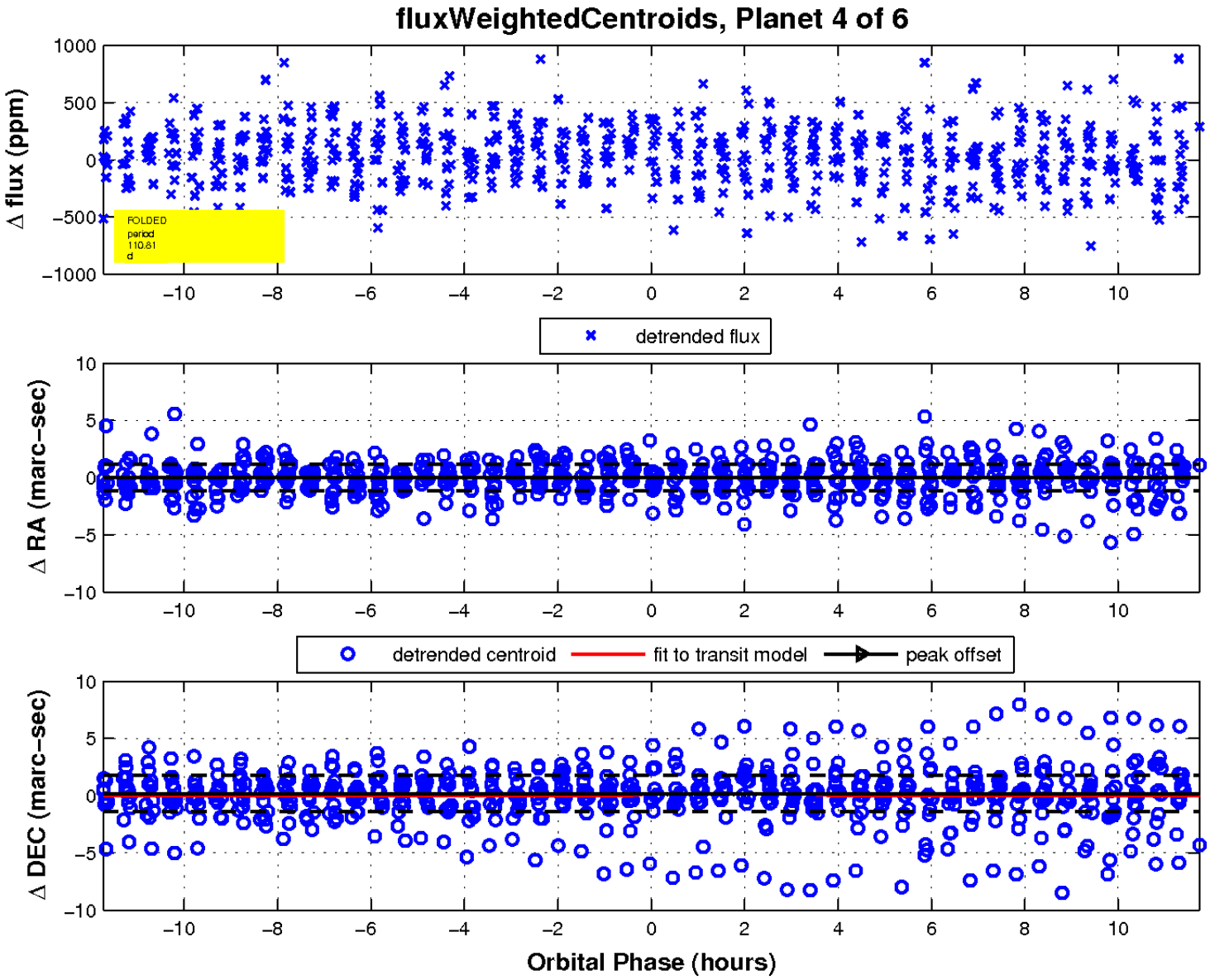
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



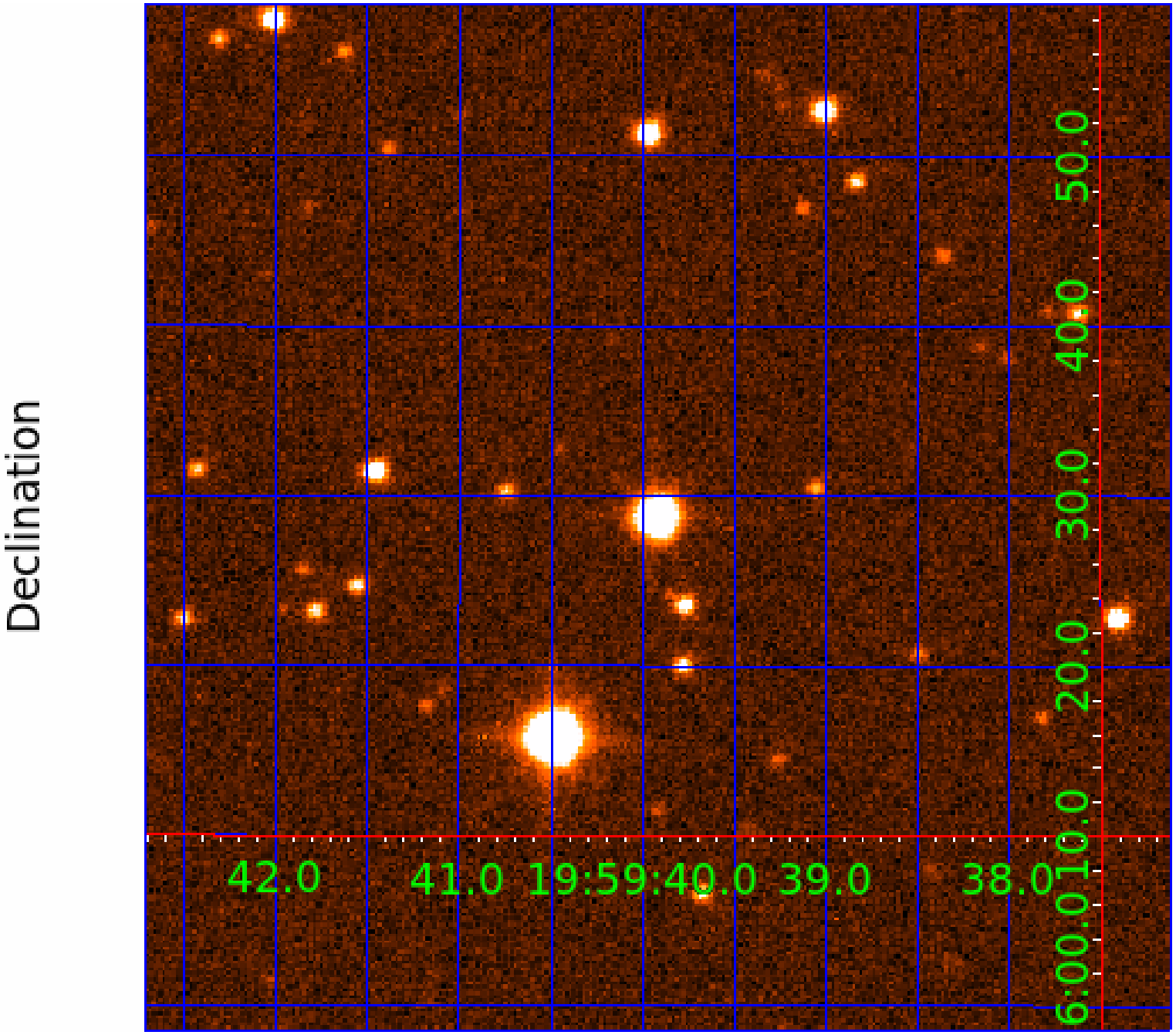
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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50.0

KIC 008125652

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 ($S_\oplus$)
008125652-01	OBS	No	3.182158	131.504873	0.0	18.631	9.8	0.0	2.45	6292	0.00	3841.77
008125652-02	OBS	No	28.727124	149.308878	353.3	21.161	9.6	10.9	2.45	6292	9.02	204.38
008125652-03	OBS	No	110.196326	205.240048	229.1	3.744	9.3	4.8	2.45	6292	4.33	34.04
008125652-04	OBS	No	110.811196	202.626594	257.3	12.500	9.1	-1.0	2.45	6292	3.94	33.78
008125652-05	OBS	No	132.025221	179.090211	365.9	3.115	8.4	8.0	2.45	6292	4.88	26.75
008125652-06	OBS	No	145.168027	268.471453	350.6	8.490	7.3	6.9	2.45	6292	5.07	23.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008125652-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV
008125652-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
008125652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
008125652-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

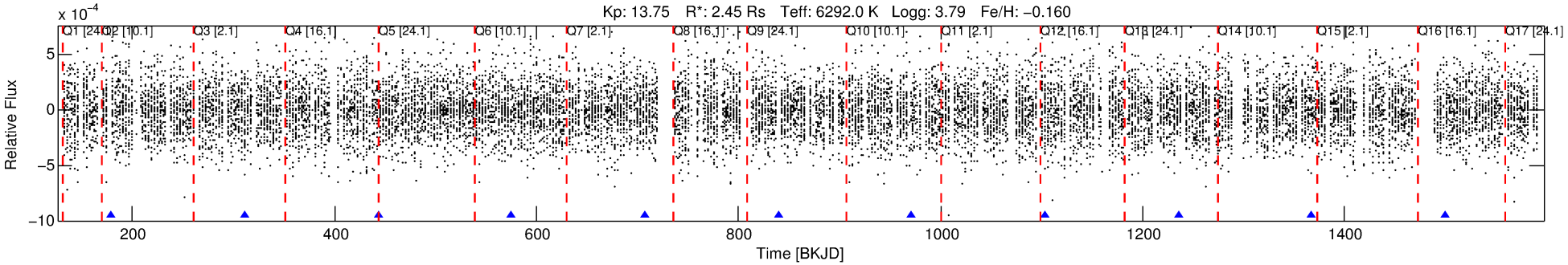
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

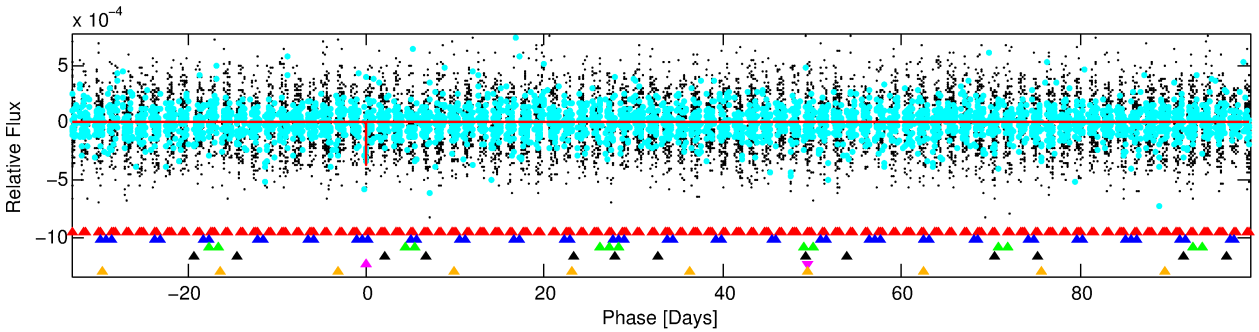
Ephemeris Match Information For 008125652-05

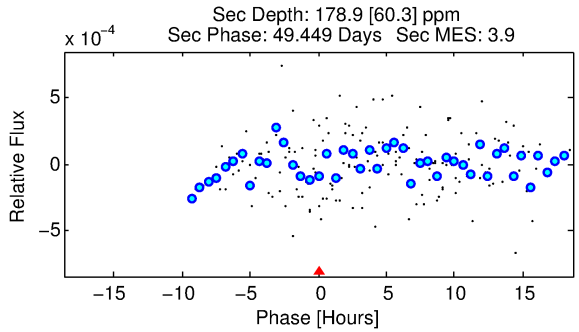
No Significant Match Found

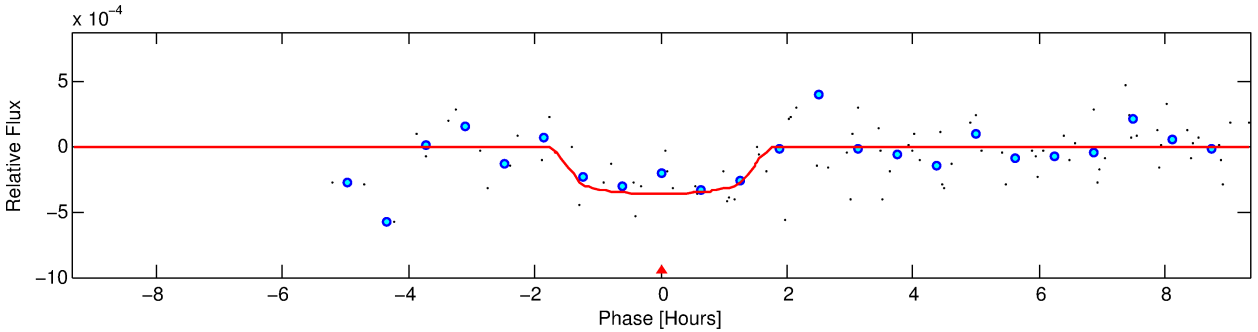
DV One-Page Summary

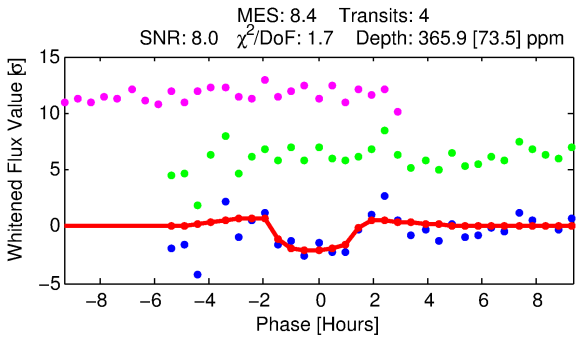
KIC: 8125652 Candidate: 5 of 6 Period: 132.025 d

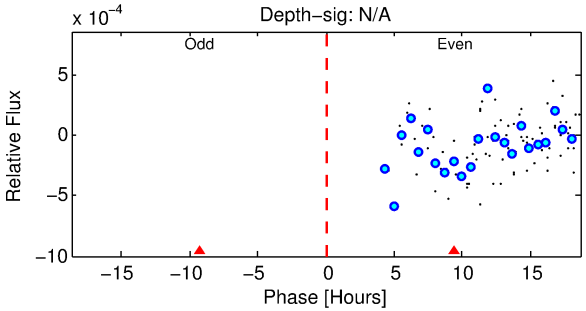


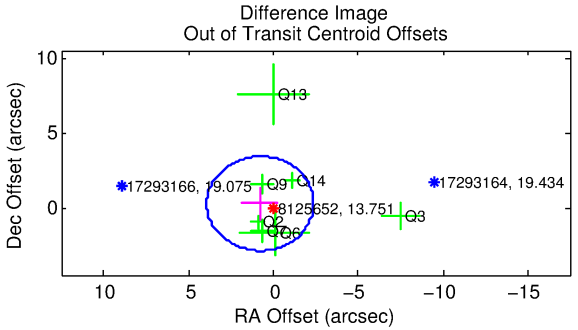












DV Fit Results:

Period = 132.02522 [0.00292] d
Epoch = 179.0902 [0.0104] BKJD
Rp/R* = 0.0183 [0.0278]
a/R* = 273.28 [2158.80]
b = 0.57 [9.42]

Seff = 26.75 [22.43]
Teq = 580 [122] K
Rp = 4.88 [7.86] Re
a = 0.5614 [0.2872] AU

Ag = 1300.87 [4126.25] [0.32σ]
Teffp = 5385 [4127] K [1.16σ]

DV Diagnostic Results:

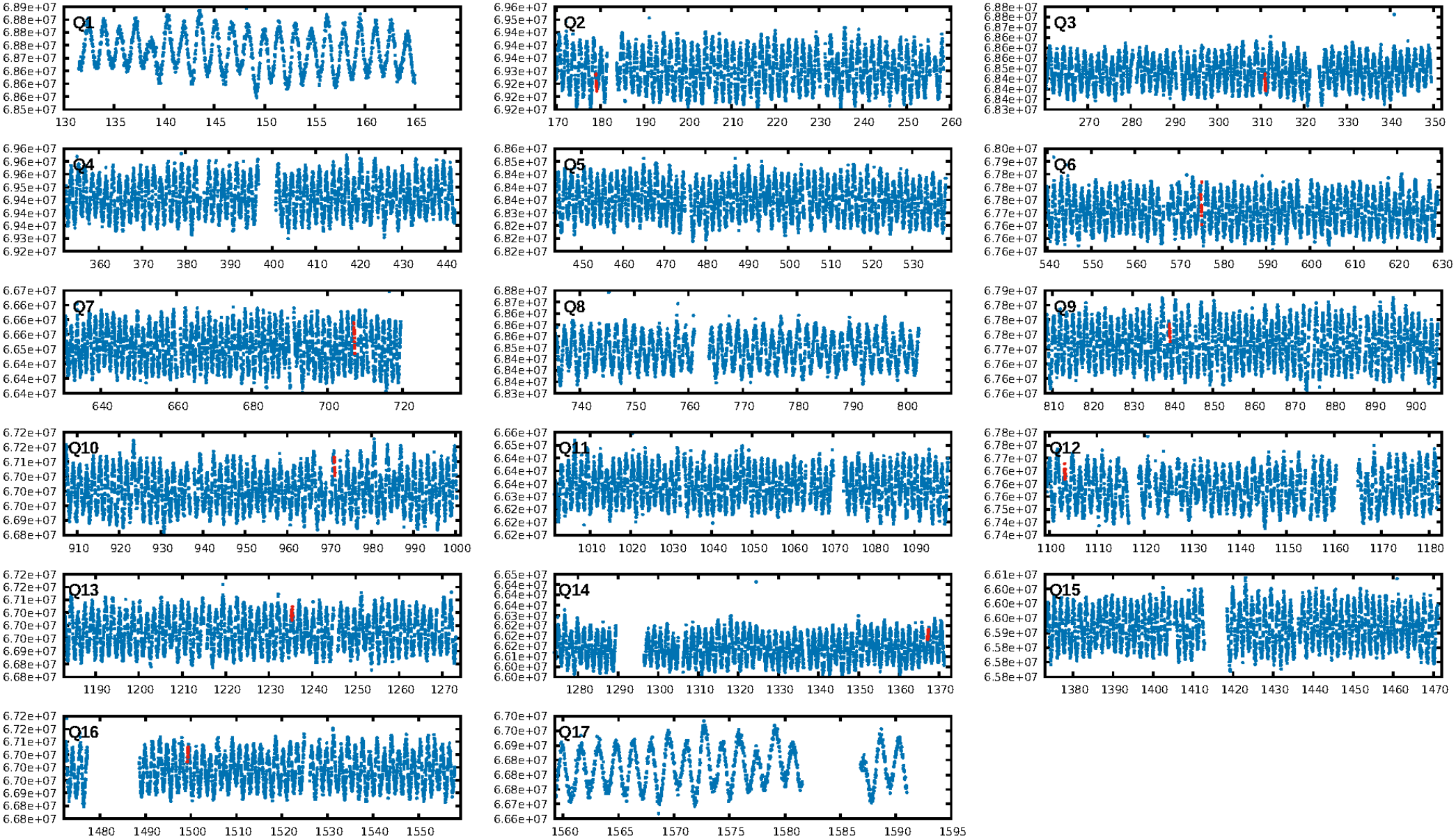
ShortPeriod−sig: 100.0% [39.52σ]
LongPeriod−sig: 100.0% [34.88σ]
ModelChiSquare2−sig: 66.4%
ModelChiSquareGof−sig: 97.8%
Bootstrap−pfa: 4.77e−10
RollingBand−fgt: 1.00 [4/4]
GhostDiagnostic−chr: 4.534

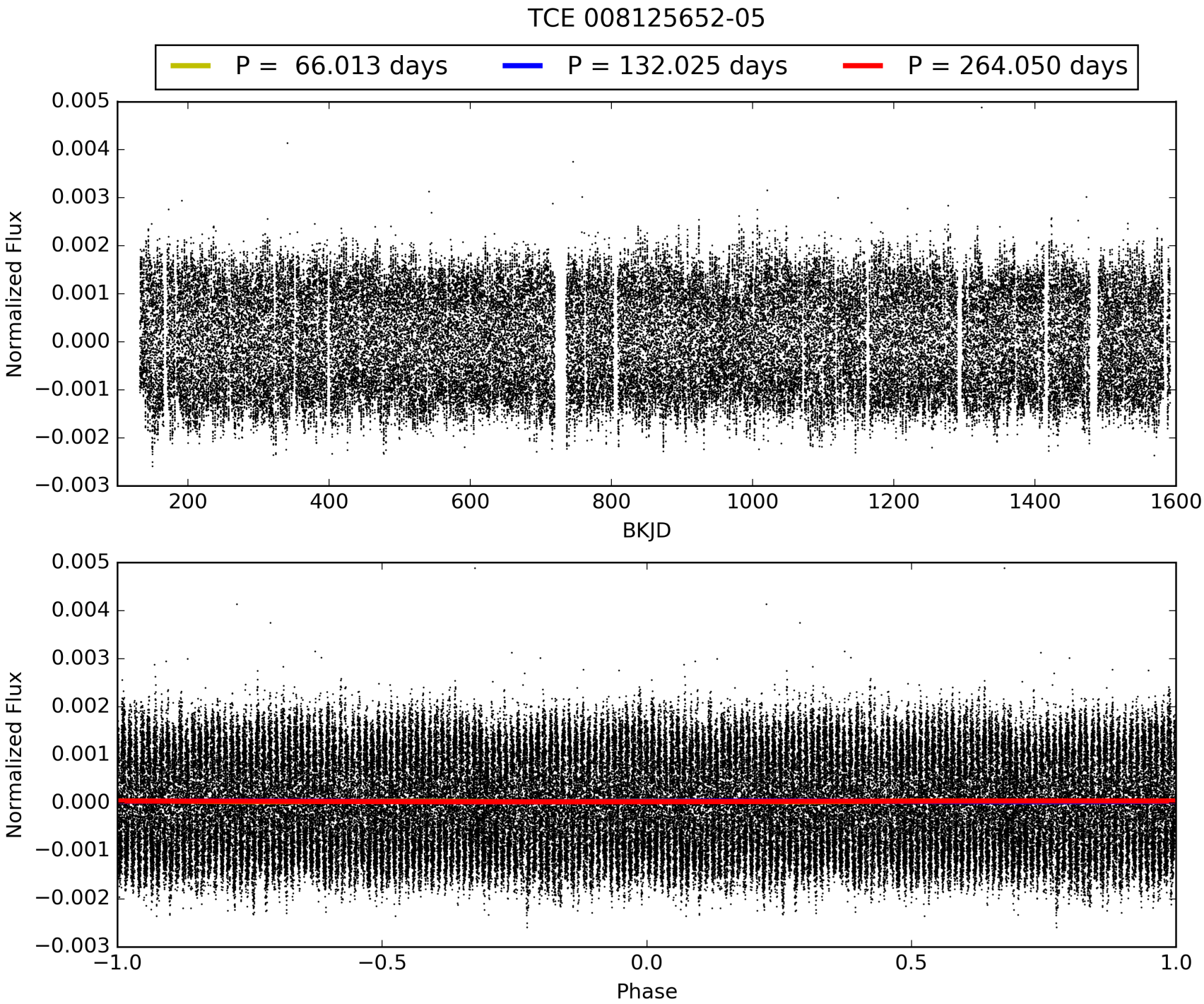
Centroid−sig: 21.9%
Centroid−so: 1.005 arcsec [0.75σ]
OotOffset−rm: 0.816 arcsec [0.78σ]
KicOffset−rm: 0.702 arcsec [0.65σ]
OotOffset−st: 3/2/0/2 [7]
KicOffset−st: 3/2/0/2 [7]
DiffImageQuality−fgm: 0.14 [1/7]
DiffImageOverlap−fno: 0.44 [4/9]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 31−Jan−2016 10:48:08 Z

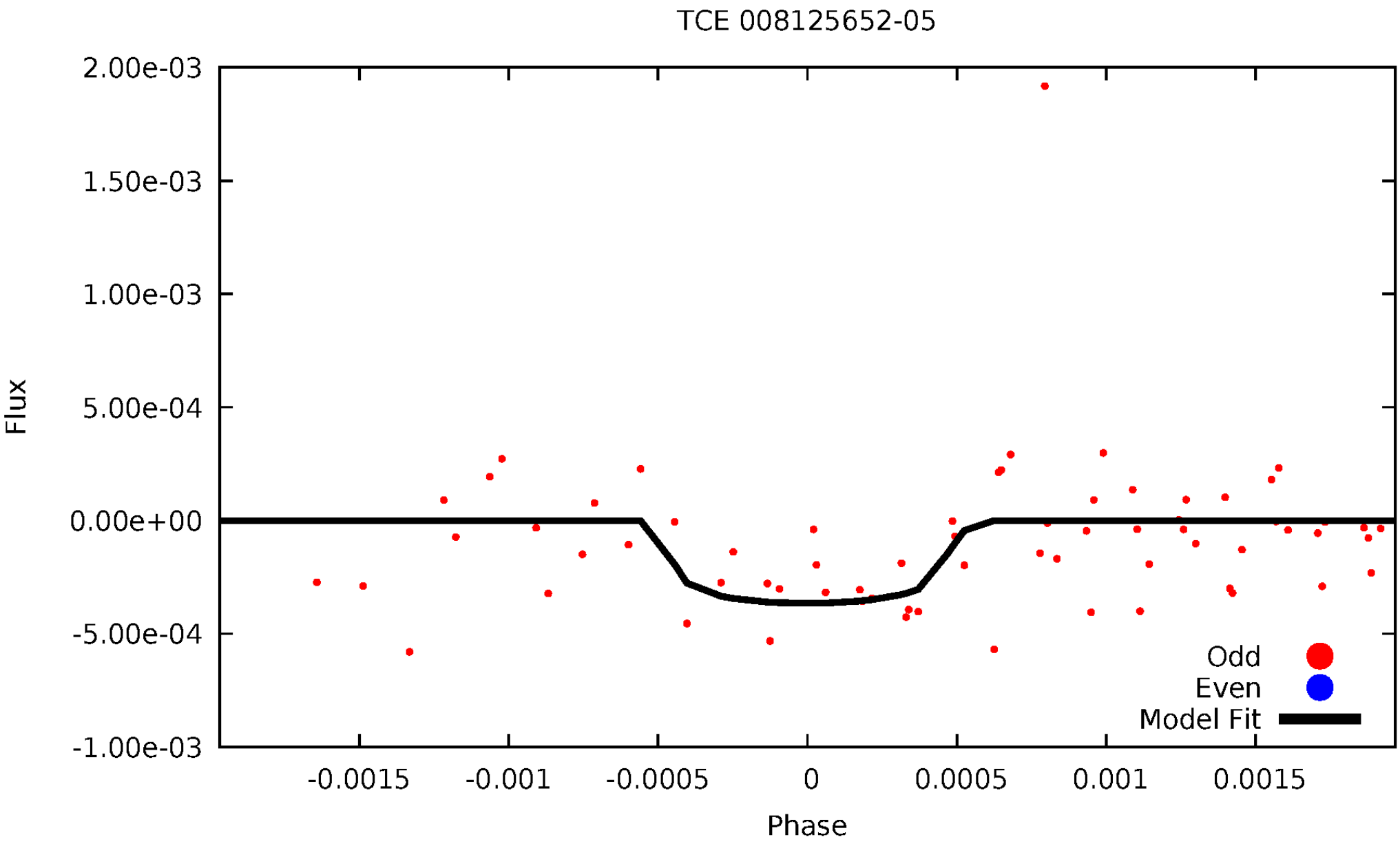
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008125652-05, PDC Light Curves

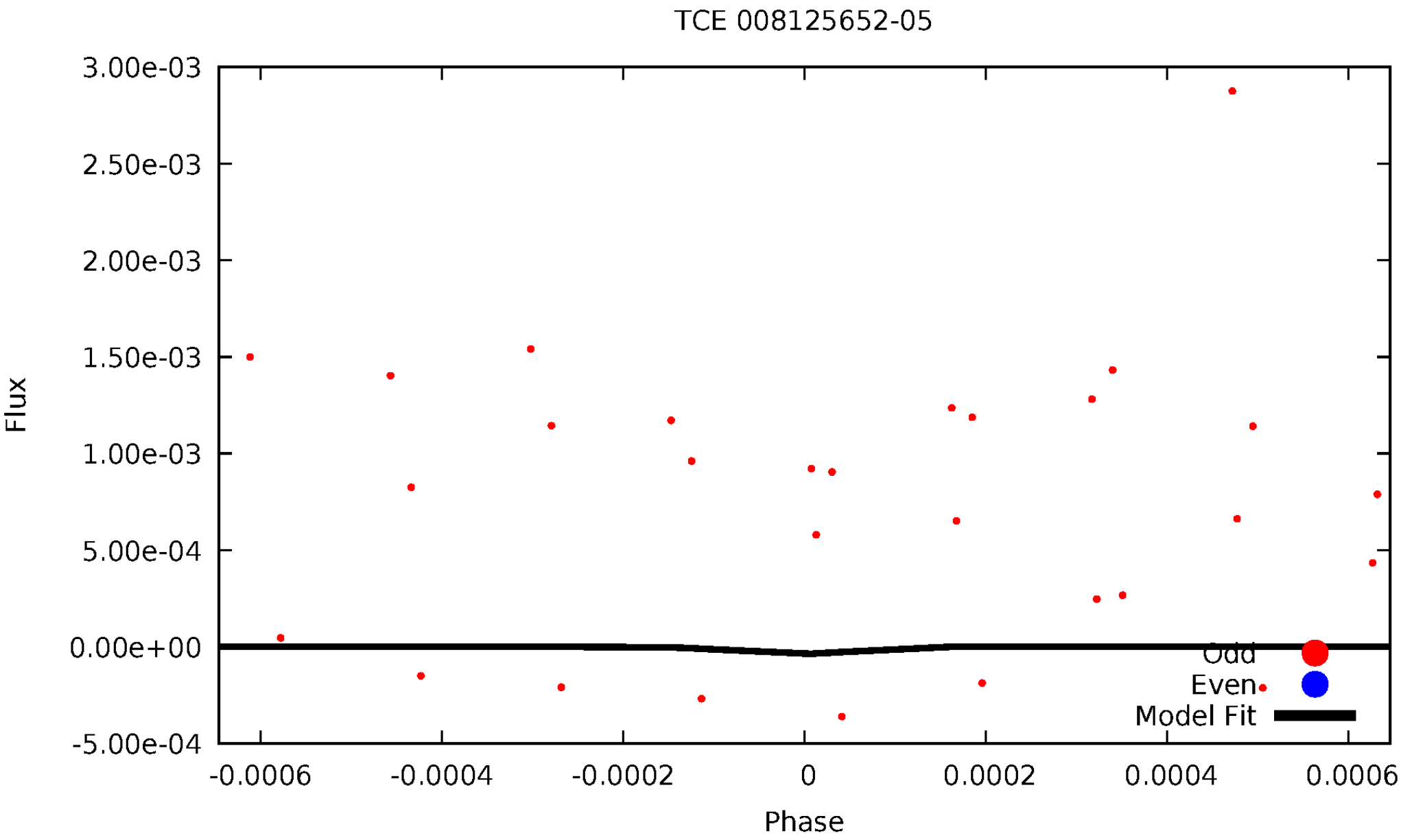



TCE 008125652-05
P = 66.013 days
P = 132.025 days
P = 264.050 days
Normalized Flux
BKJD
Normalized Flux
Phase

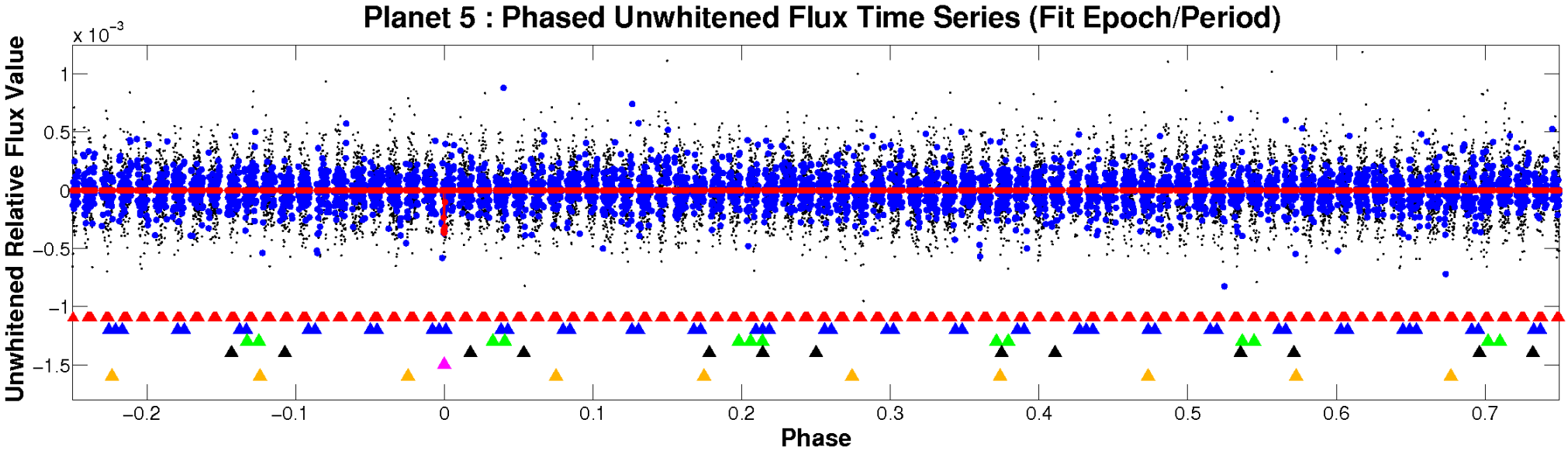
DV Odd/Even

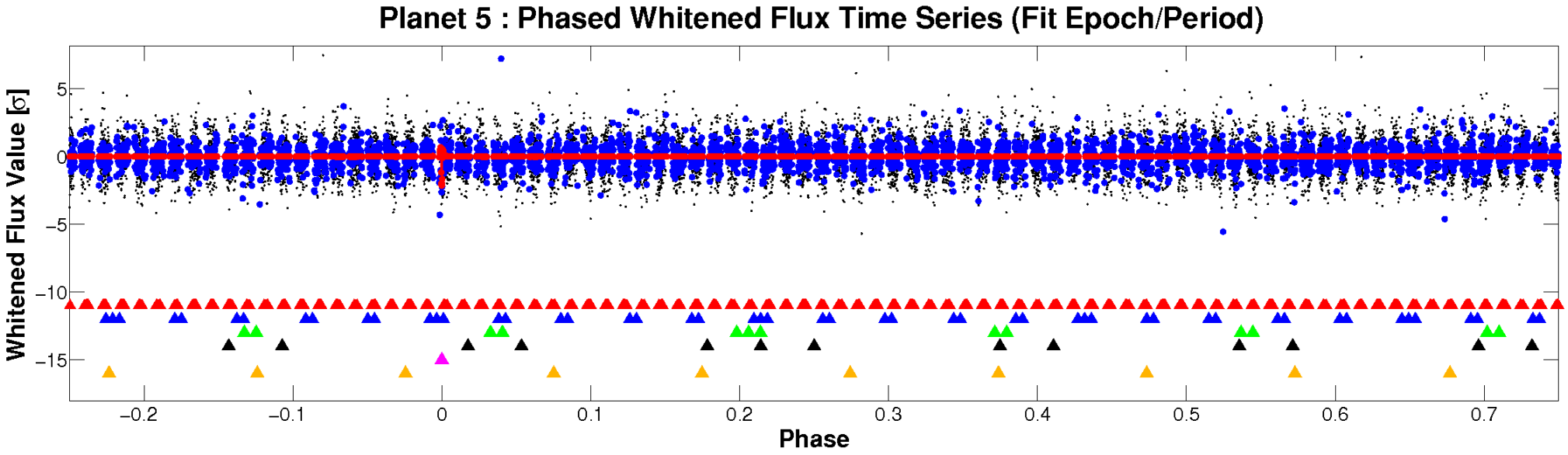

TCE 008125652-05
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 008125652-05
3.00e-03
2.50e-03
2.00e-03
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
Flux
-0.0006
-0.0004
-0.0002
0
0.0002
0.0004
0.0006
Phase
Odd
Even
Model Fit

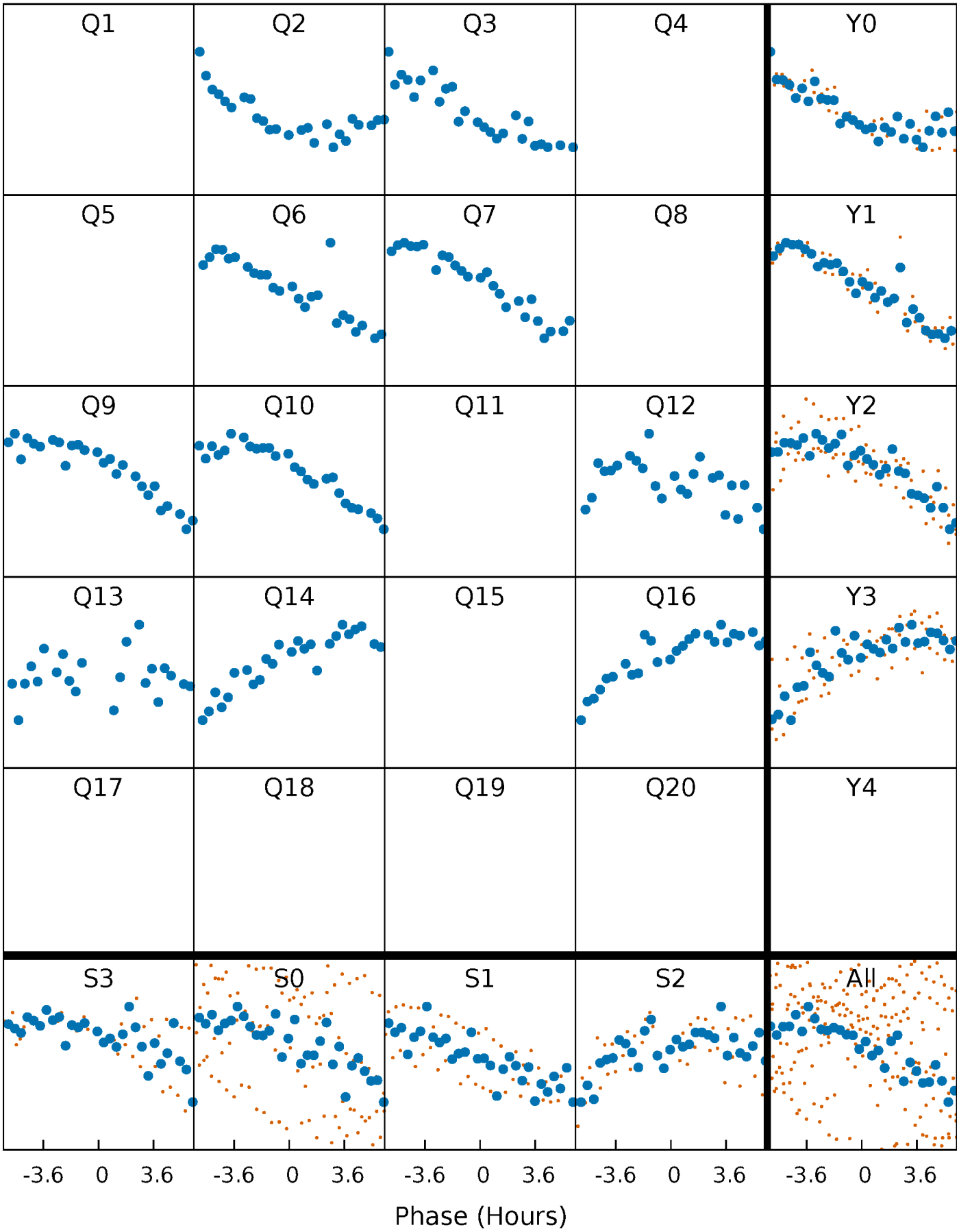
Non-Whitened Vs. Whitened Light Curve





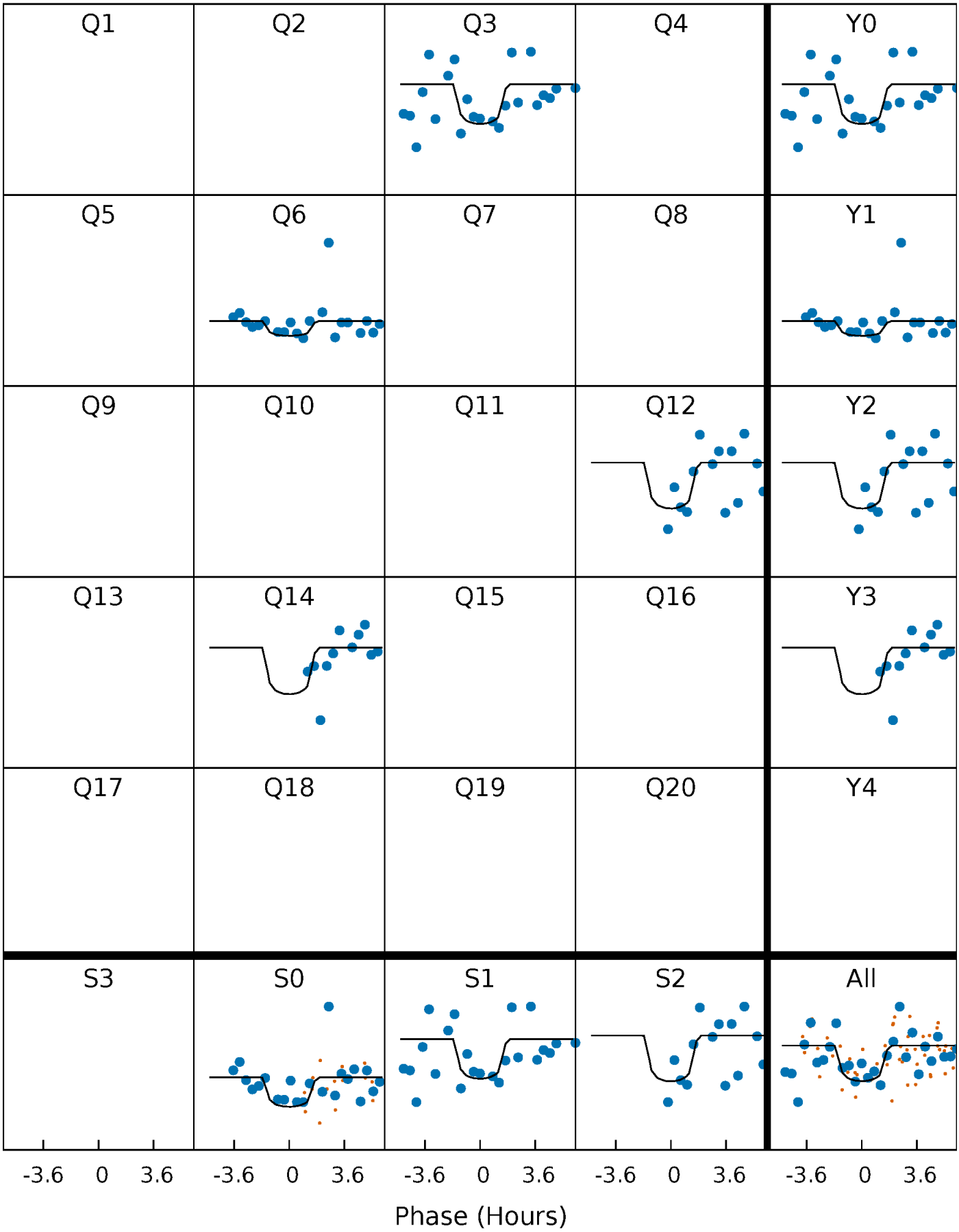
PDC Quarter-Phased Transit Curves

TCE 008125652-05 P=132.025221 Days T_0=179.090211 (BKJD)



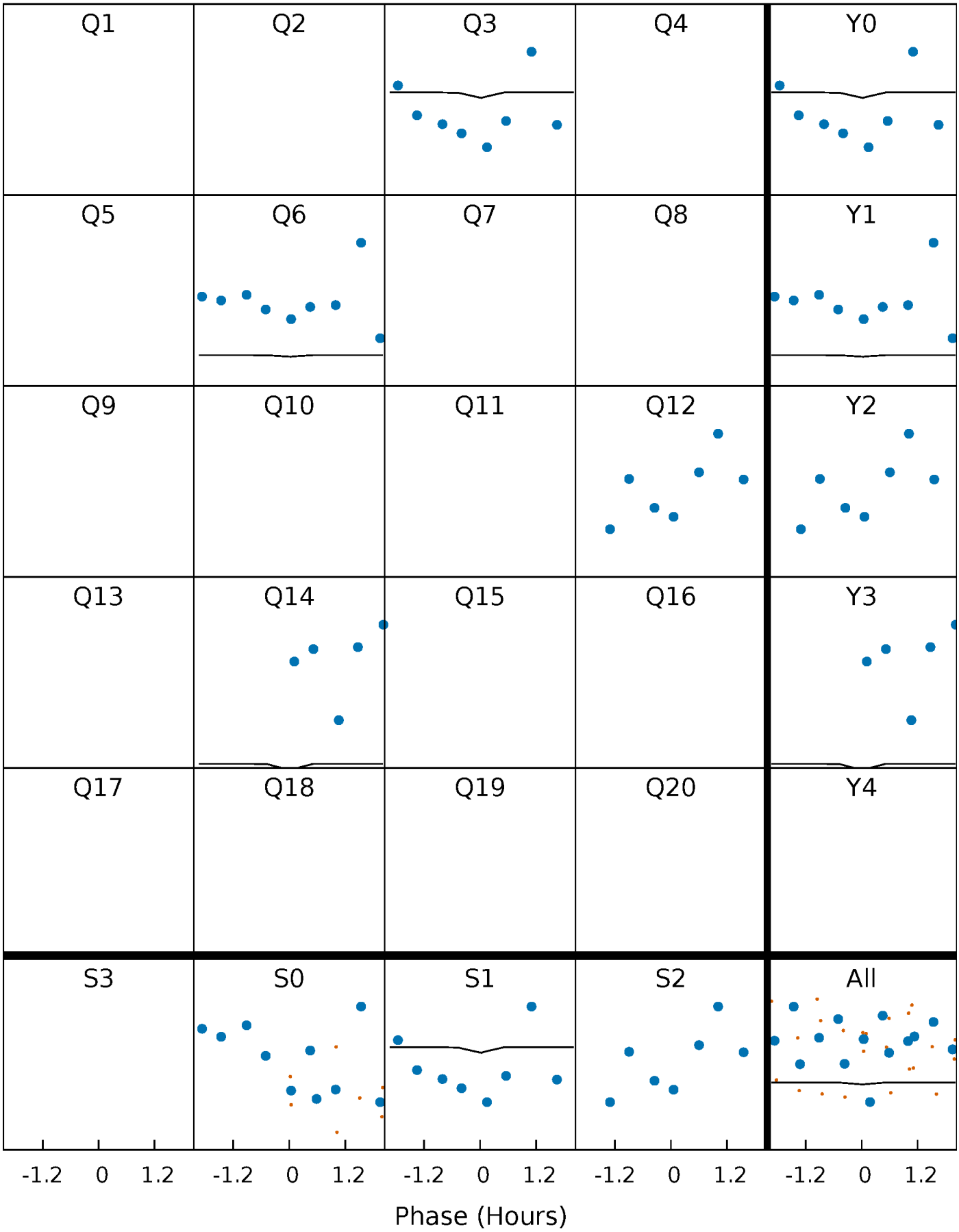
DV Quarter-Phased Transit Curves

TCE 008125652-05 P=132.025221 Days T_0=179.090211 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

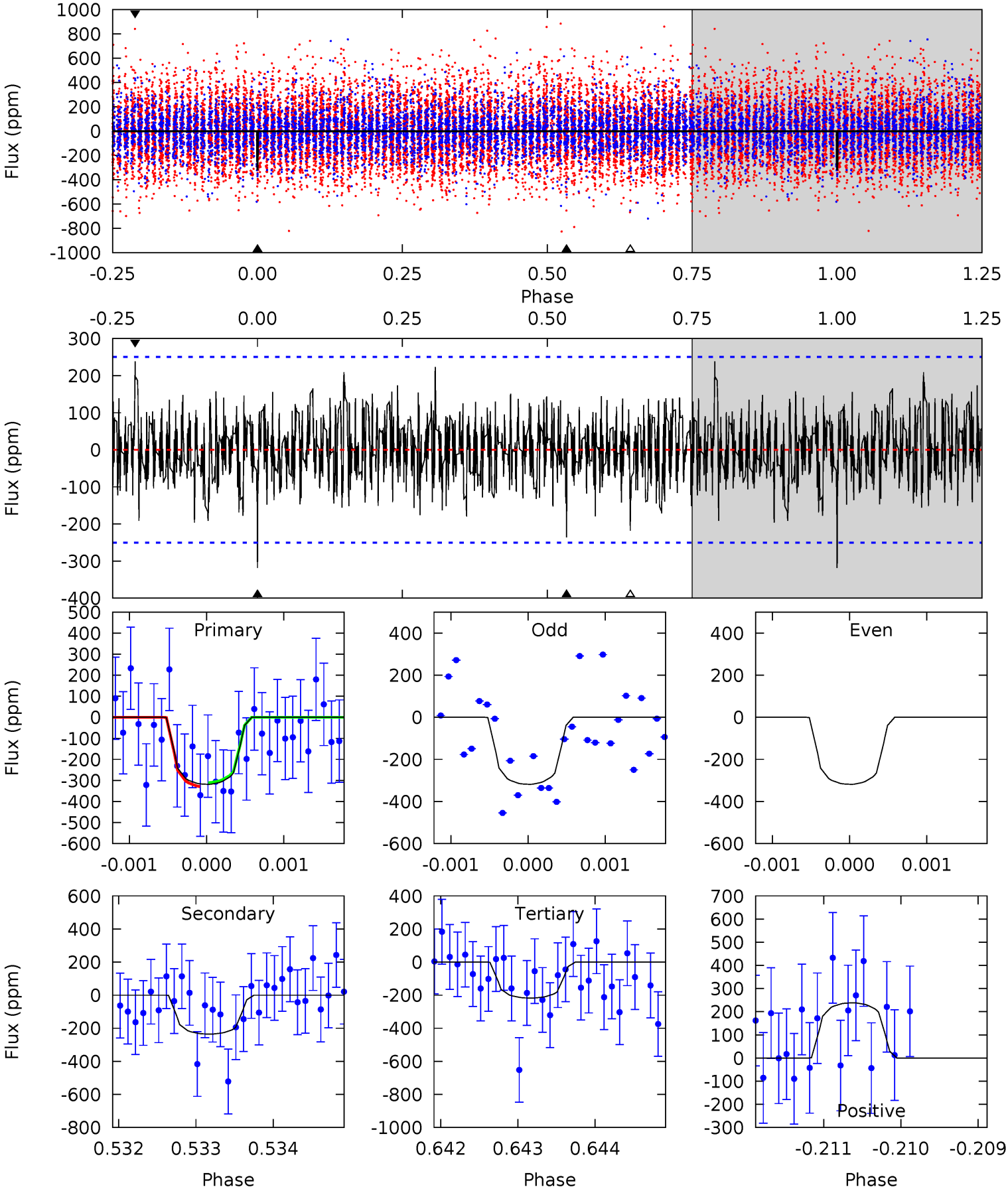
TCE 008125652-05 P=132.024766 Days T_0=179.134149 (BKJD)



DV Model-Shift Uniqueness Test

008125652-05, P = 132.025221 Days, E = 47.064990 Days

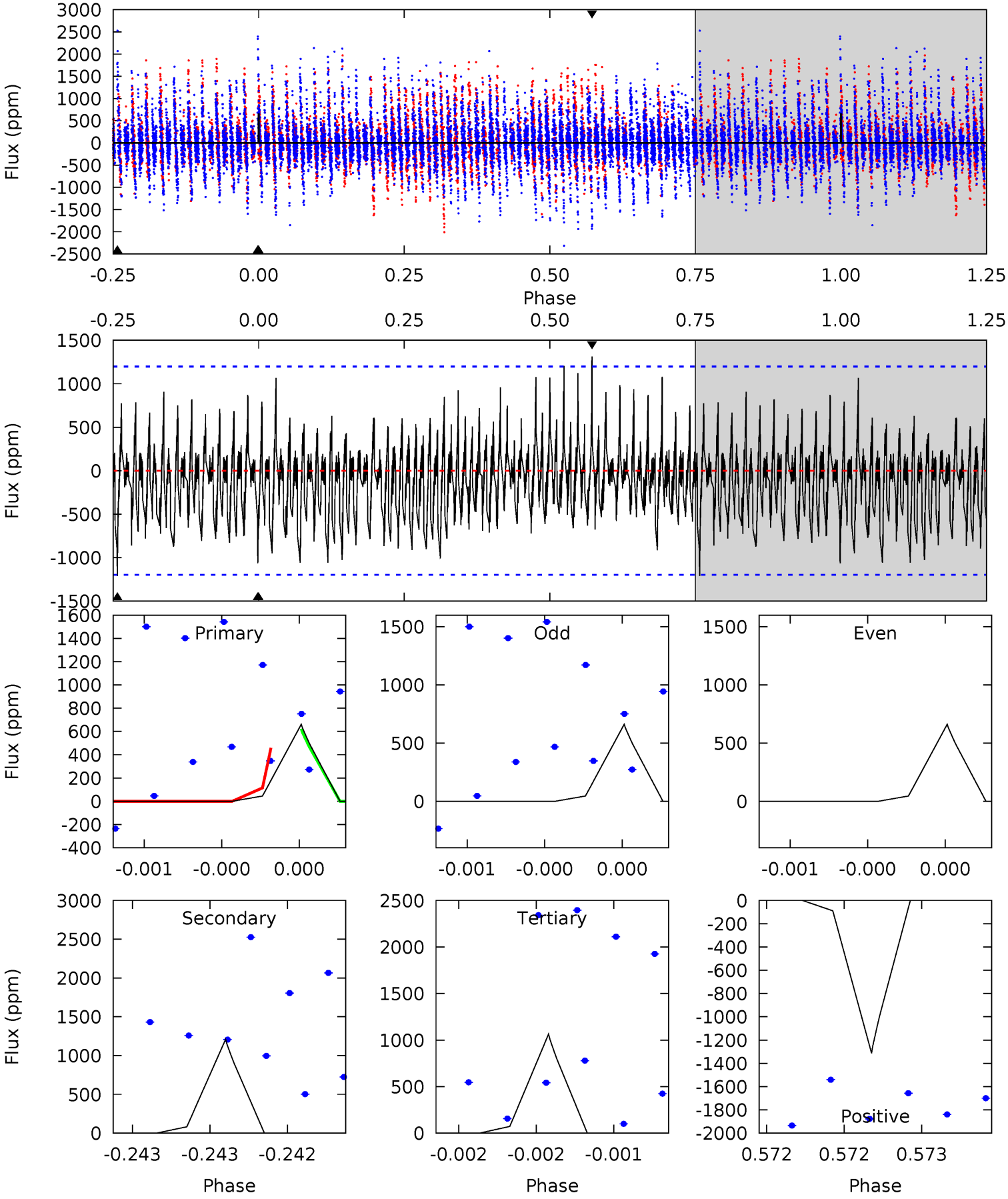
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.92	5.12	4.73	5.18	5.44	3.27	1.33	2.19	1.74	0.38	-0.06	0	1.01	0.43	0.18



Alt Model-Shift Uniqueness Test

008125652-05, P = 132.024766 Days, E = 47.109383 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.12	5.71	5.02	6.20	5.66	3.61	1.30	-1.90	-3.08	0.69	-0.49	0	0.59	0.52	0.37



Stellar Parameters For KIC 008125652

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	M($M_\odot$)	$p_\star$ (g·cm^{-3})
	6292^{+203}_{-225}	$3.791^{+0.488}_{-0.122}$	$-0.160^{+0.300}_{-0.300}$	$2.450^{+0.513}_{-1.281}$	$1.354^{+0.218}_{-0.327}$	$0.130^{+0.716}_{-0.050}$
	+3%/-4%	+13%/-3%	+188%/-188%	+21%/-52%	+16%/-24%	+552%/-38%
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 008125652-05 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-236±46	$6.29^{+6.17}_{-4.22}$	789^{+58}_{-95}	4879^{+3537}_{-1060}	1030^{+7729}_{-752}
Alt.	-1209±212	$4.92^{+5.64}_{-3.50}$	791^{+58}_{-100}	8450^{+18472}_{-2864}	8598^{+95234}_{-6838}

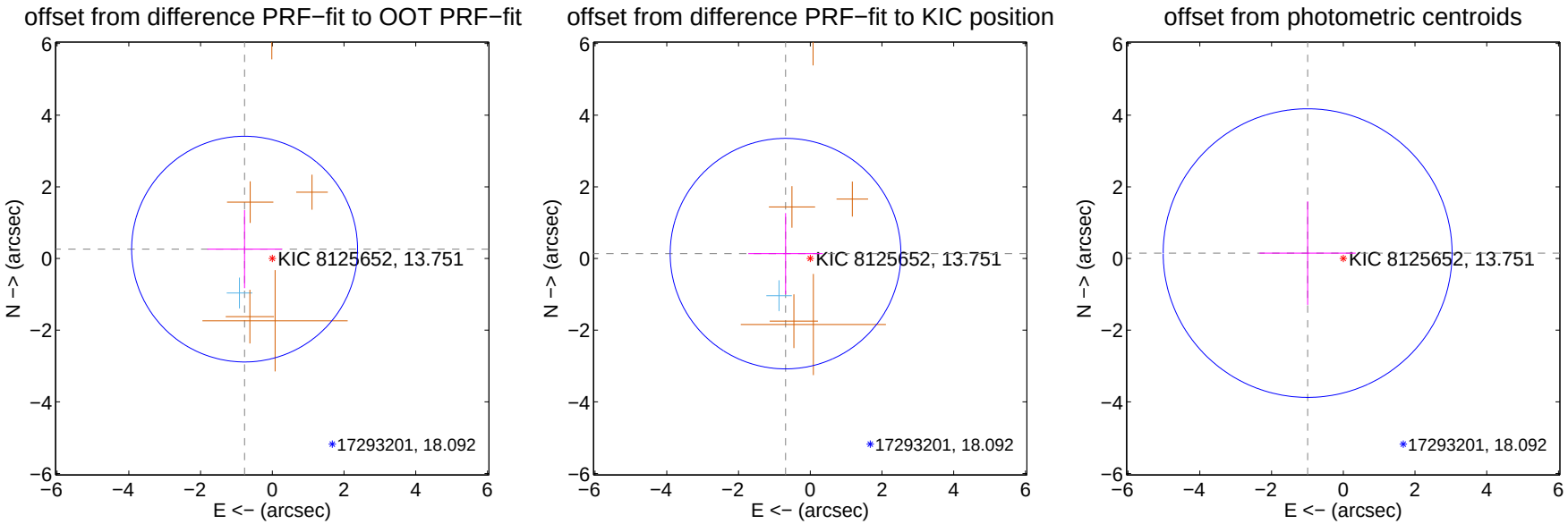
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

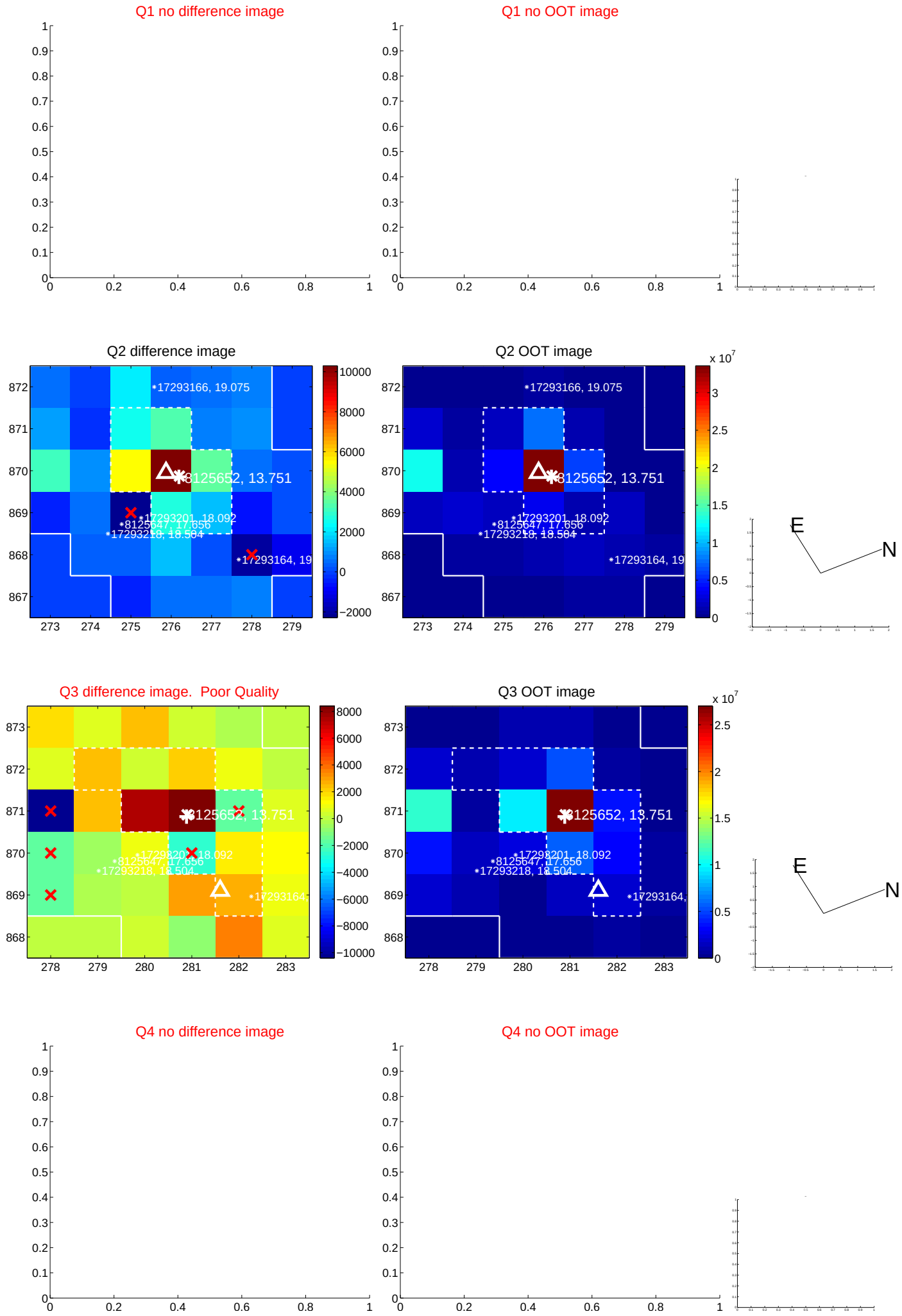
Supplemental centroid analysis for 008125652-05. Kepler magnitude: 13.75. Transit SNR 8.03
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.816 ± 1.050	0.78	0.772 ± 1.041	0.262 ± 1.088
PRF-fit source offset from KIC position	0.702 ± 1.072	0.65	0.689 ± 1.038	0.136 ± 1.132
photometric centroid source offset	1.01 ± 1.34	0.75	0.99 ± 1.34	0.15 ± 1.44

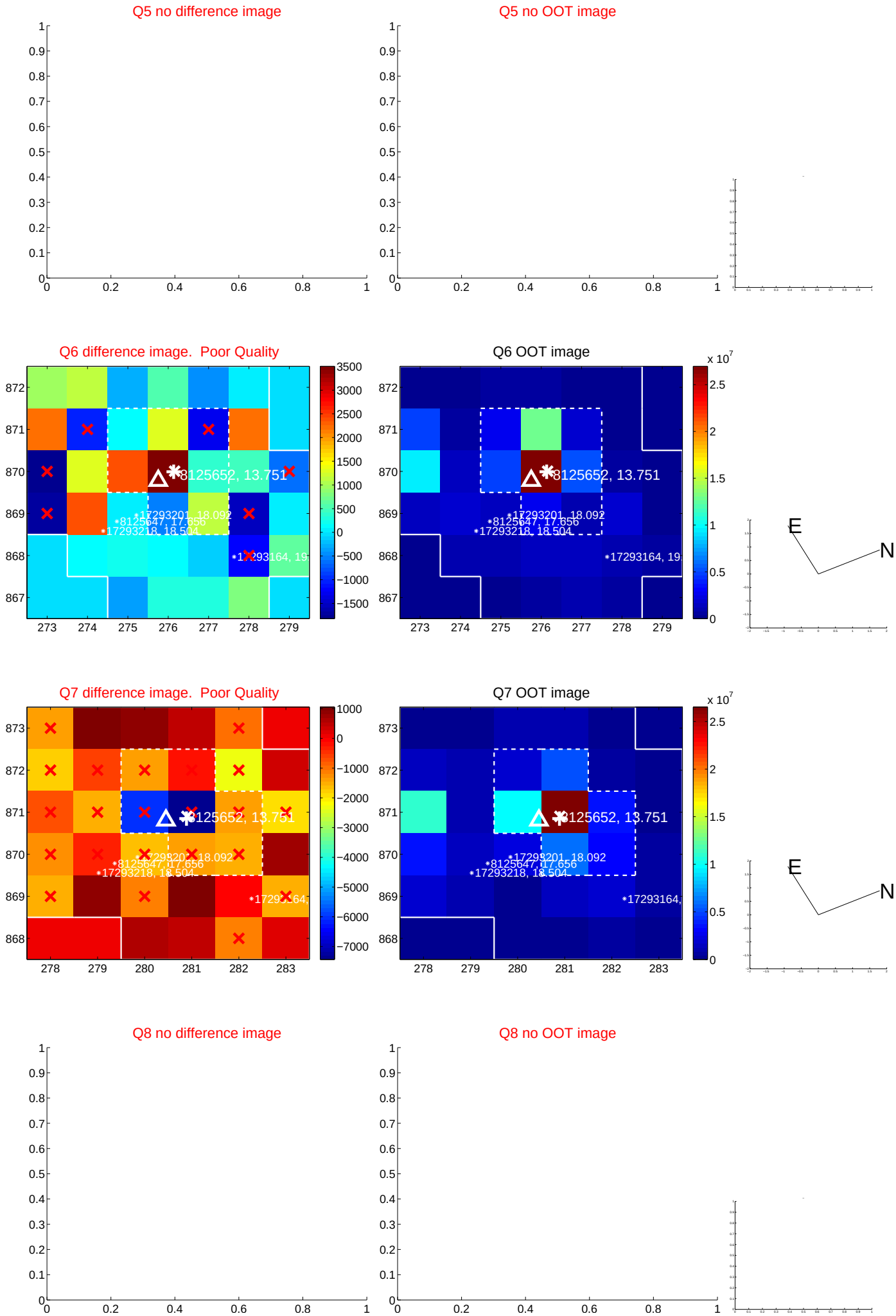


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

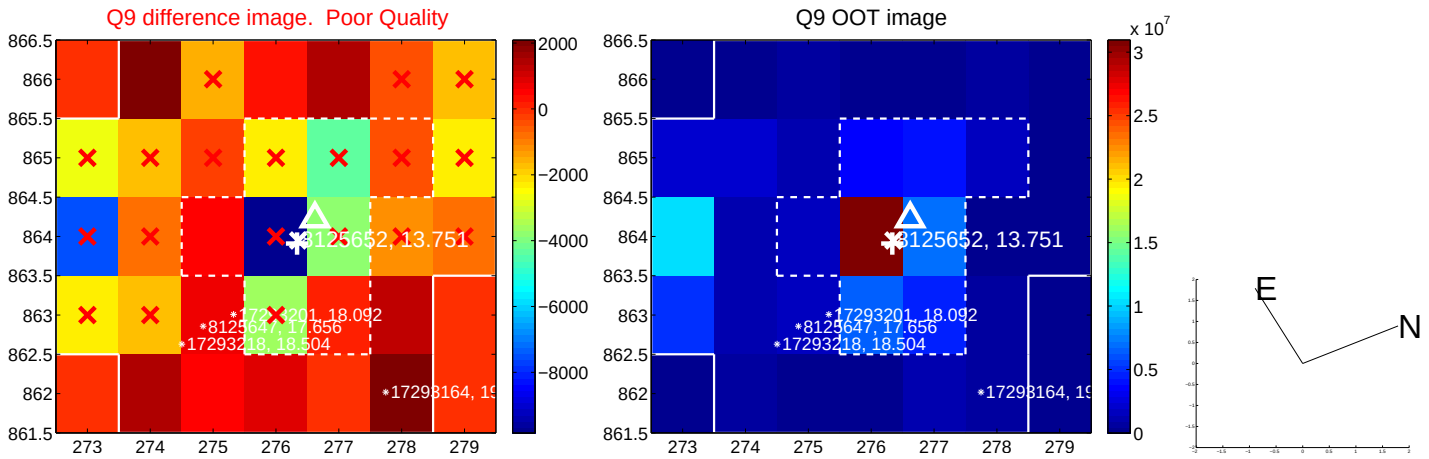
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

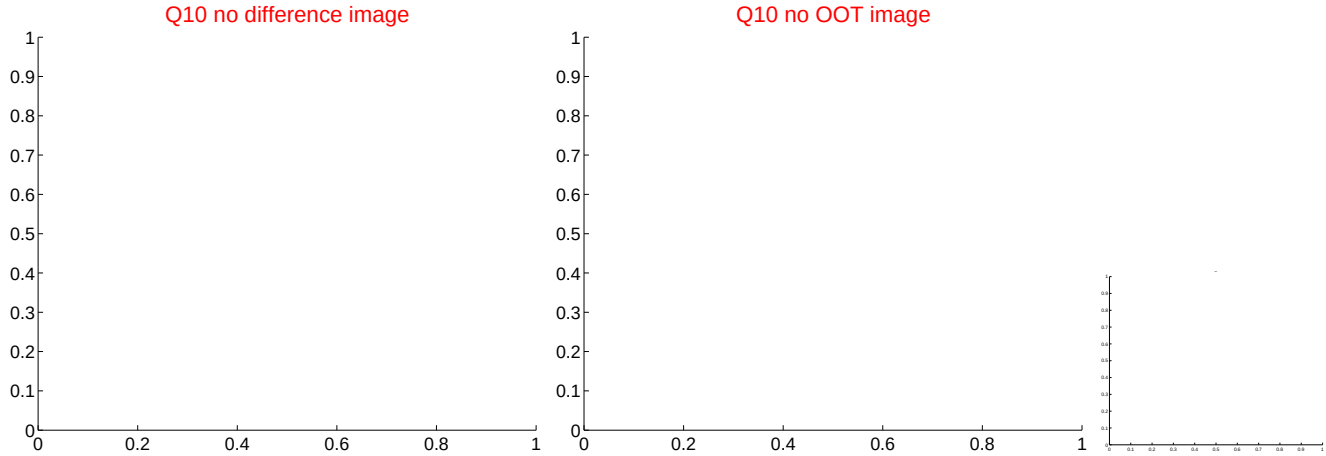


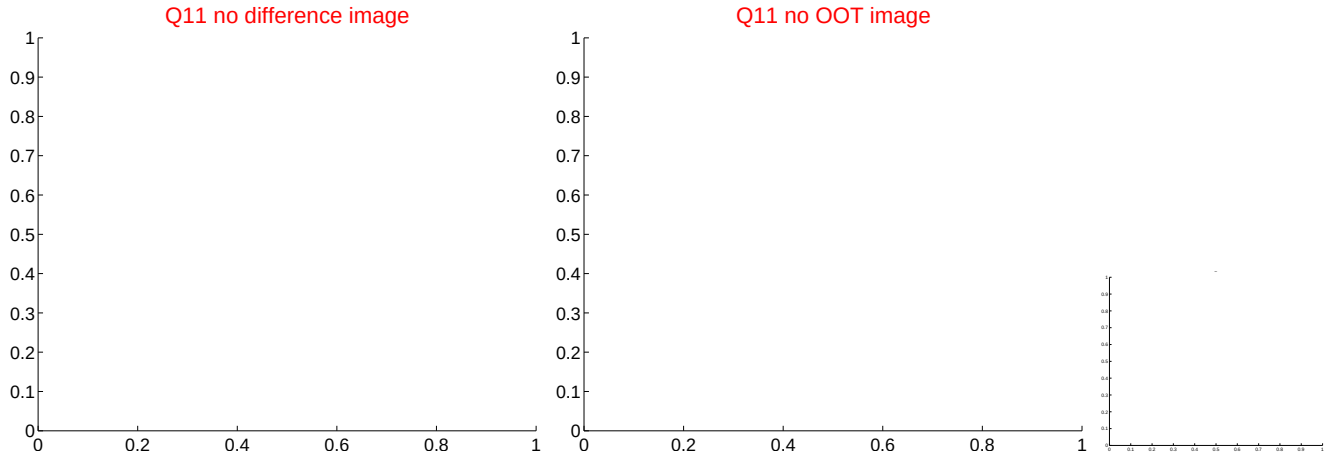
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

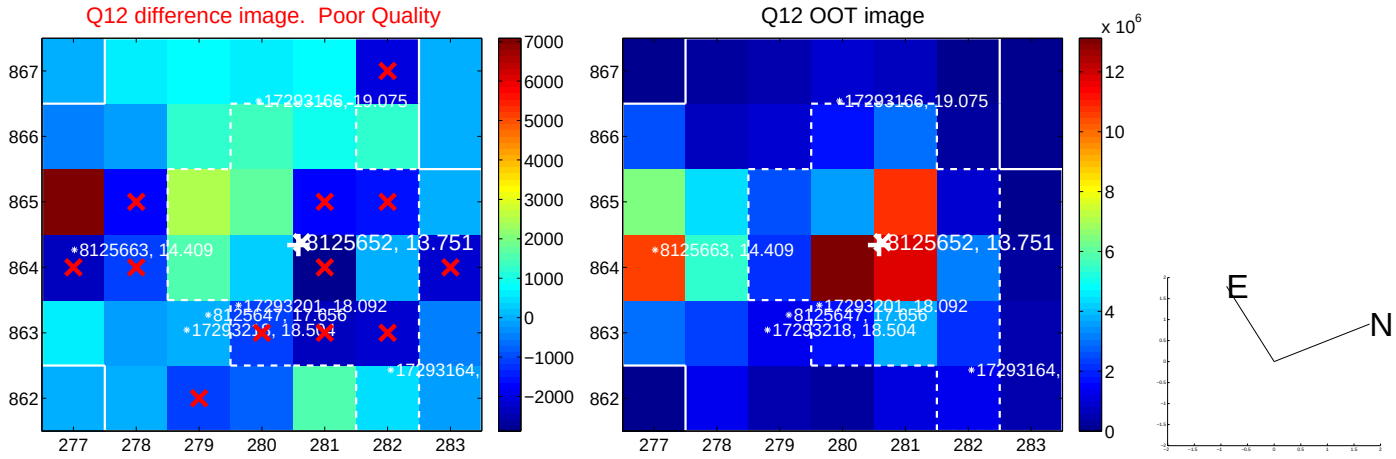


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

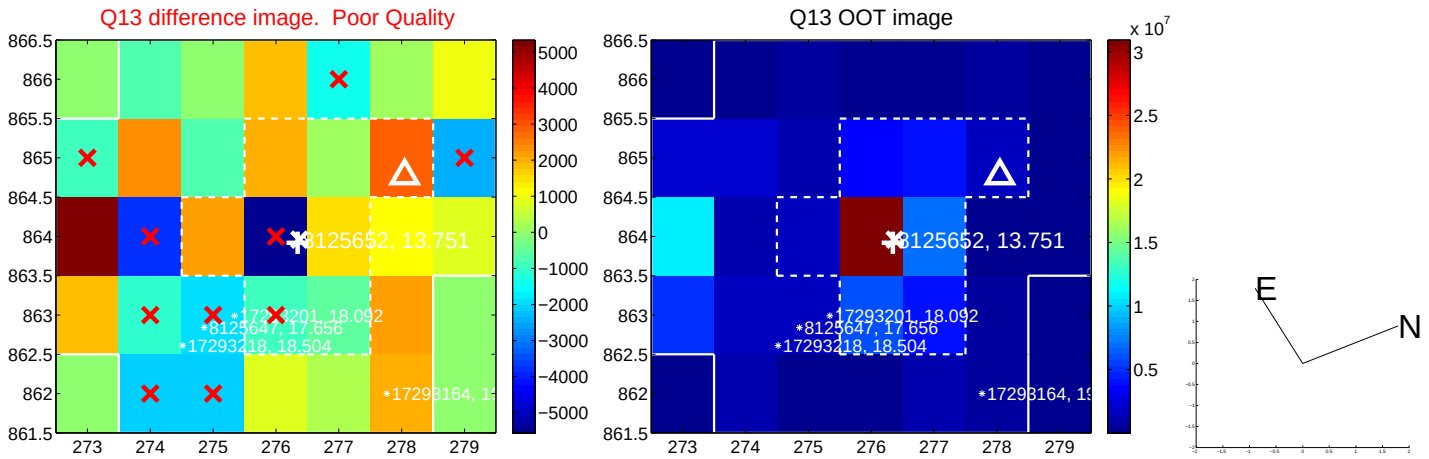


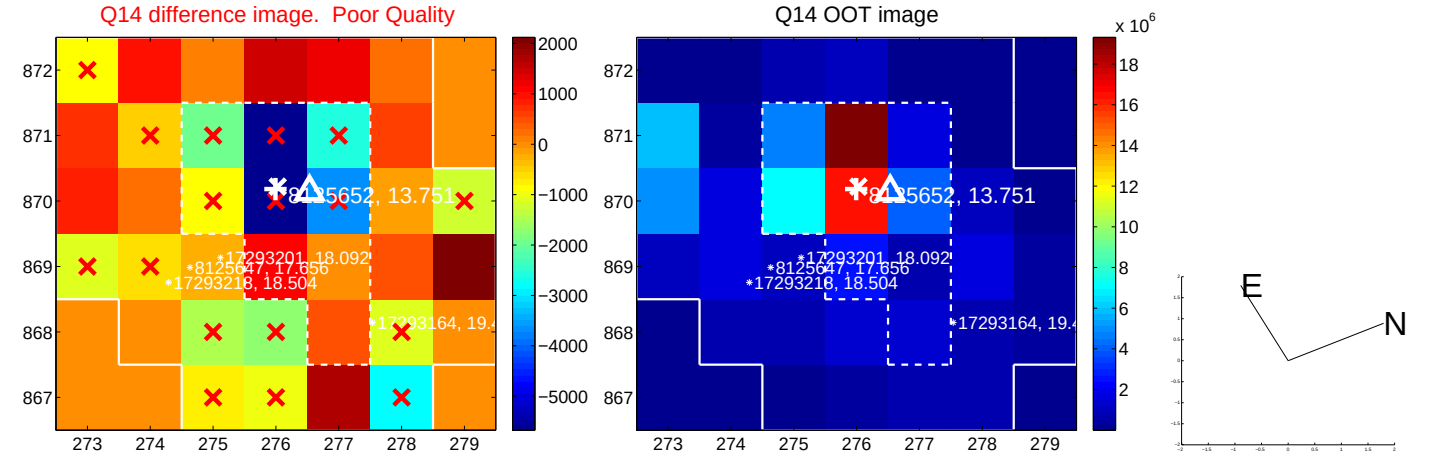


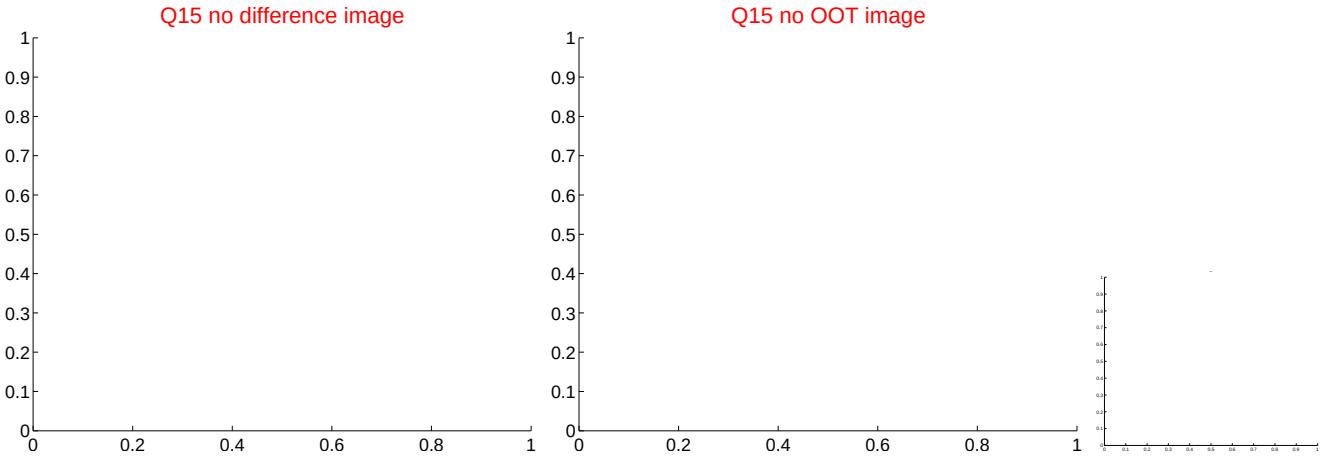


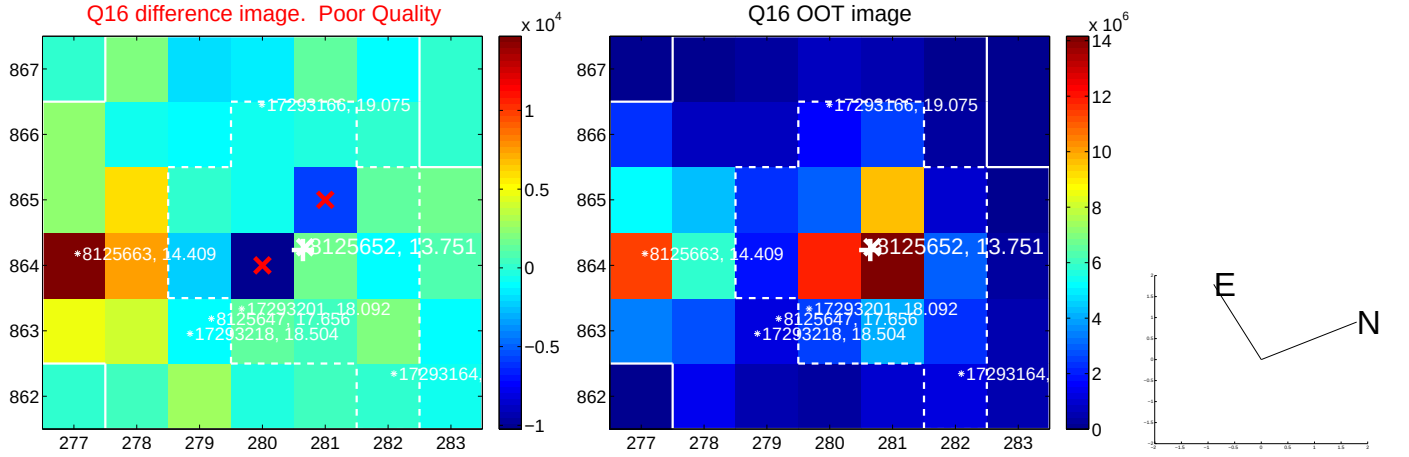


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

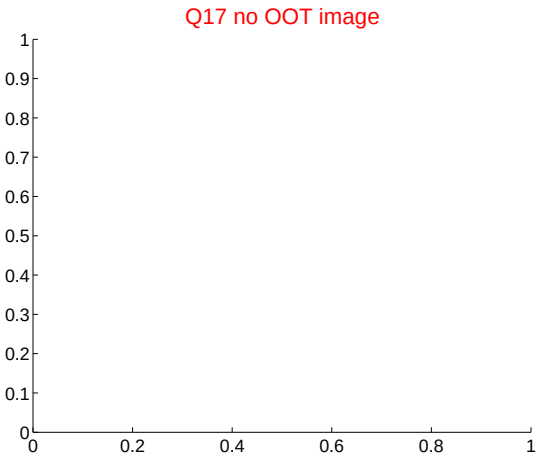


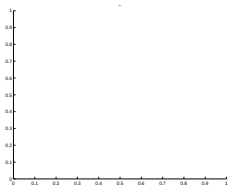


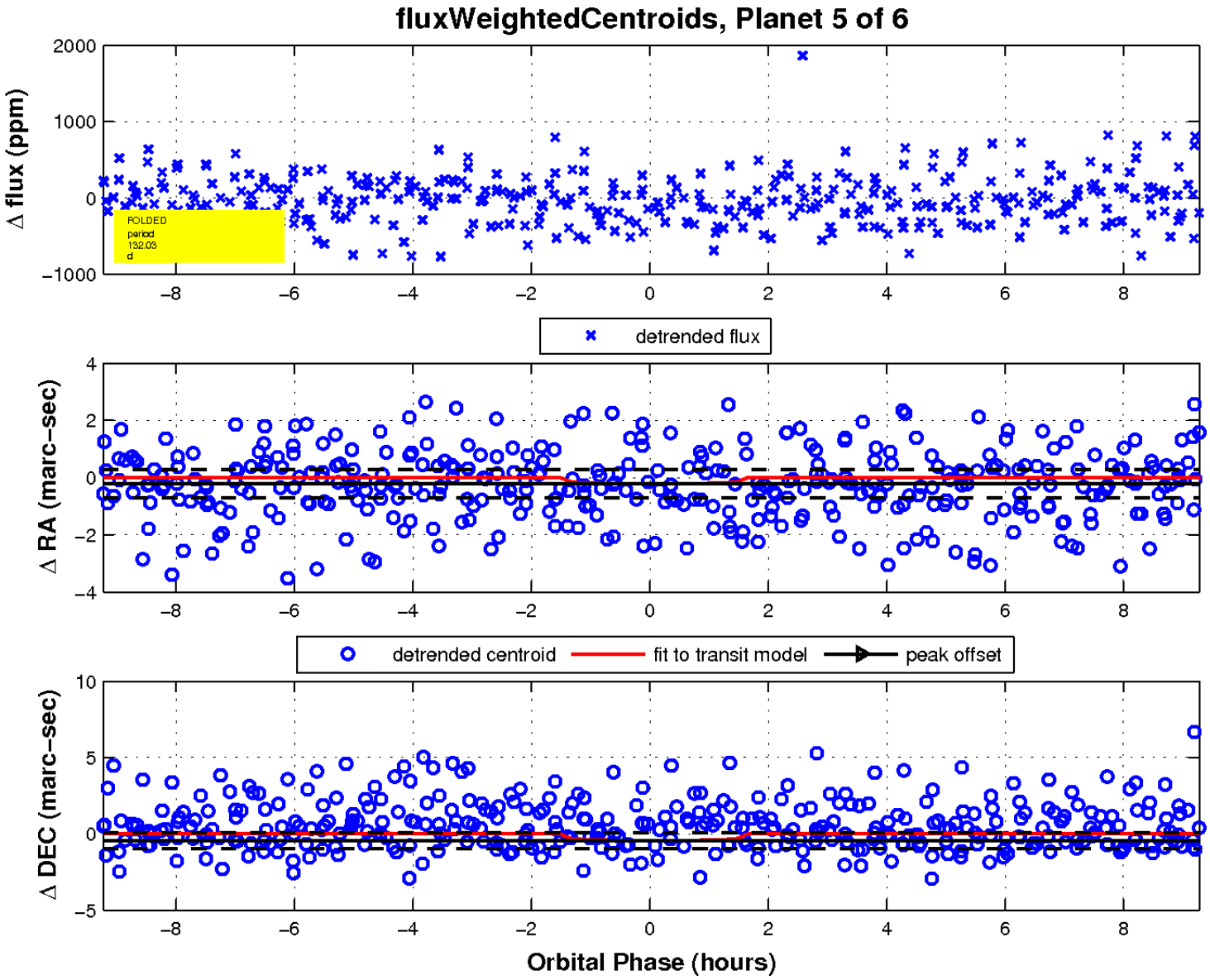




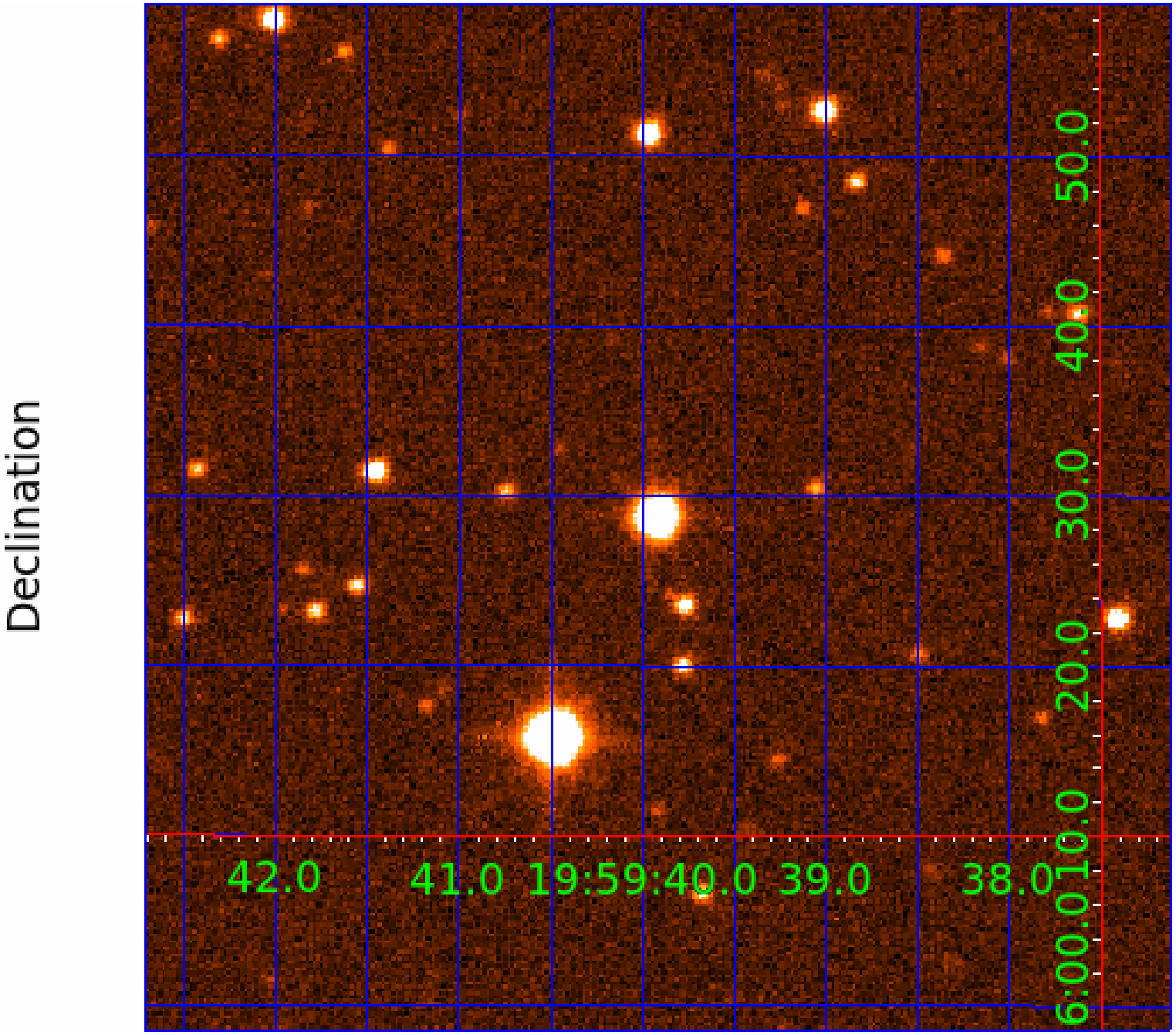
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.







UKIRT Image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KIC 008125652

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 ($S_\oplus$)
008125652-01	OBS	No	3.182158	131.504873	0.0	18.631	9.8	0.0	2.45	6292	0.00	3841.77
008125652-02	OBS	No	28.727124	149.308878	353.3	21.161	9.6	10.9	2.45	6292	9.02	204.38
008125652-03	OBS	No	110.196326	205.240048	229.1	3.744	9.3	4.8	2.45	6292	4.33	34.04
008125652-04	OBS	No	110.811196	202.626594	257.3	12.500	9.1	-1.0	2.45	6292	3.94	33.78
008125652-05	OBS	No	132.025221	179.090211	365.9	3.115	8.4	8.0	2.45	6292	4.88	26.75
008125652-06	OBS	No	145.168027	268.471453	350.6	8.490	7.3	6.9	2.45	6292	5.07	23.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008125652-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV
008125652-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008125652-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
008125652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
008125652-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

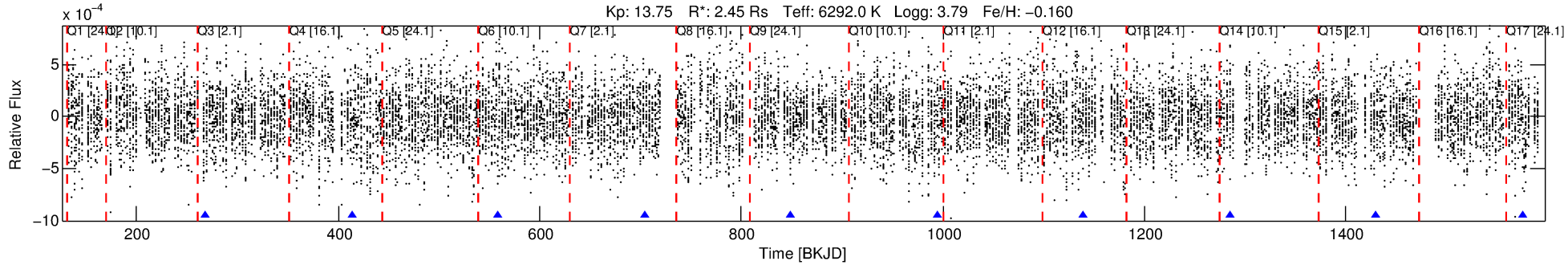
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

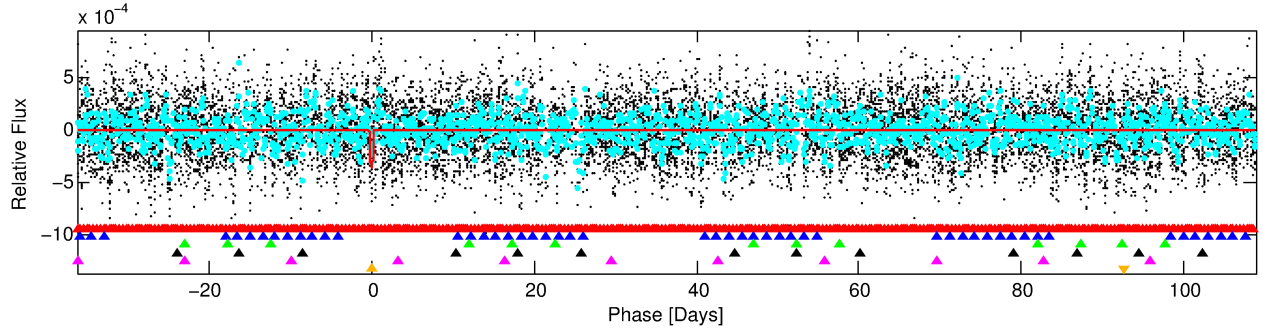
Ephemeris Match Information For 008125652-06

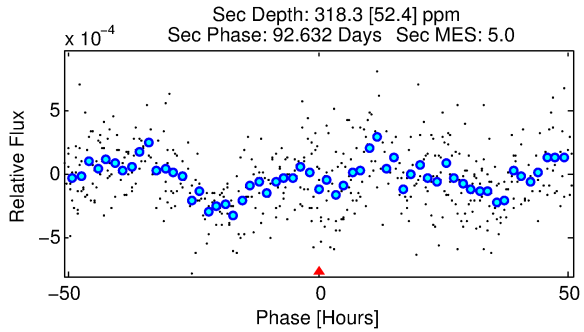
No Significant Match Found

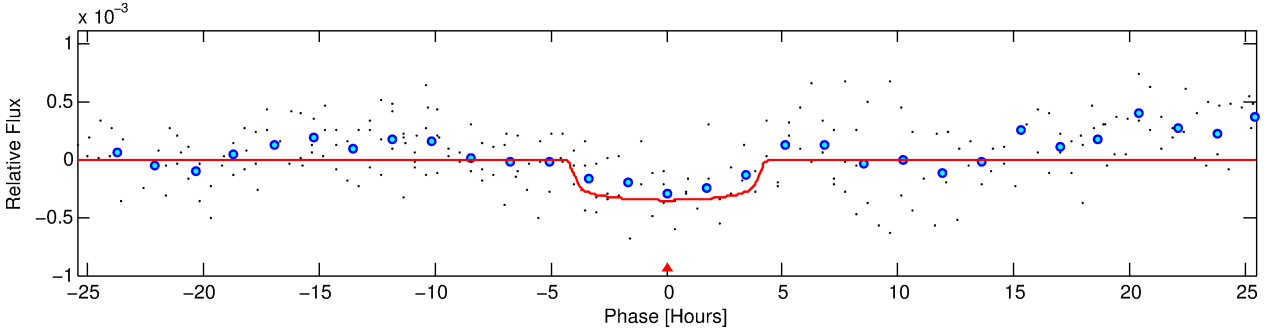
DV One-Page Summary

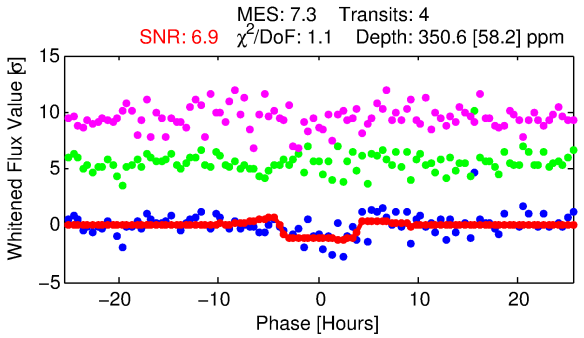
KIC: 8125652 Candidate: 6 of 6 Period: 145.168 d

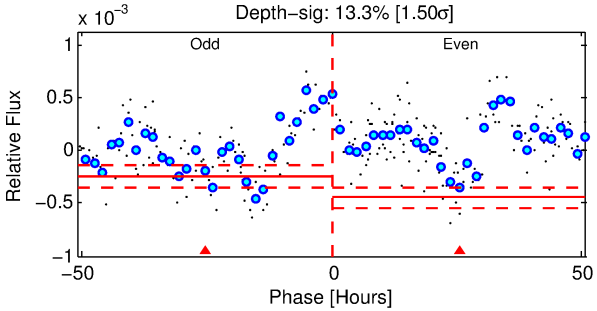


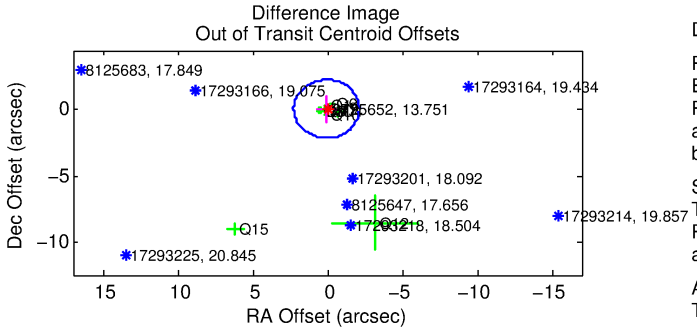












DV Fit Results:

Period = 145.16803 [0.00318] d
Epoch = 268.4715 [0.0191] BKJD
Rp/R* = 0.0190 [0.0084]
a/R* = 82.54 [191.39]
b = 0.80 [1.05]

Seff = 23.57 [19.76]
Teq = 562 [118] K
Rp = 5.07 [3.47] Re
a = 0.5980 [0.3060] AU

Ag = 2436.50 [2979.29] [0.82σ]
Teffp = 6103 [1393] K [3.97σ]

DV Diagnostic Results:

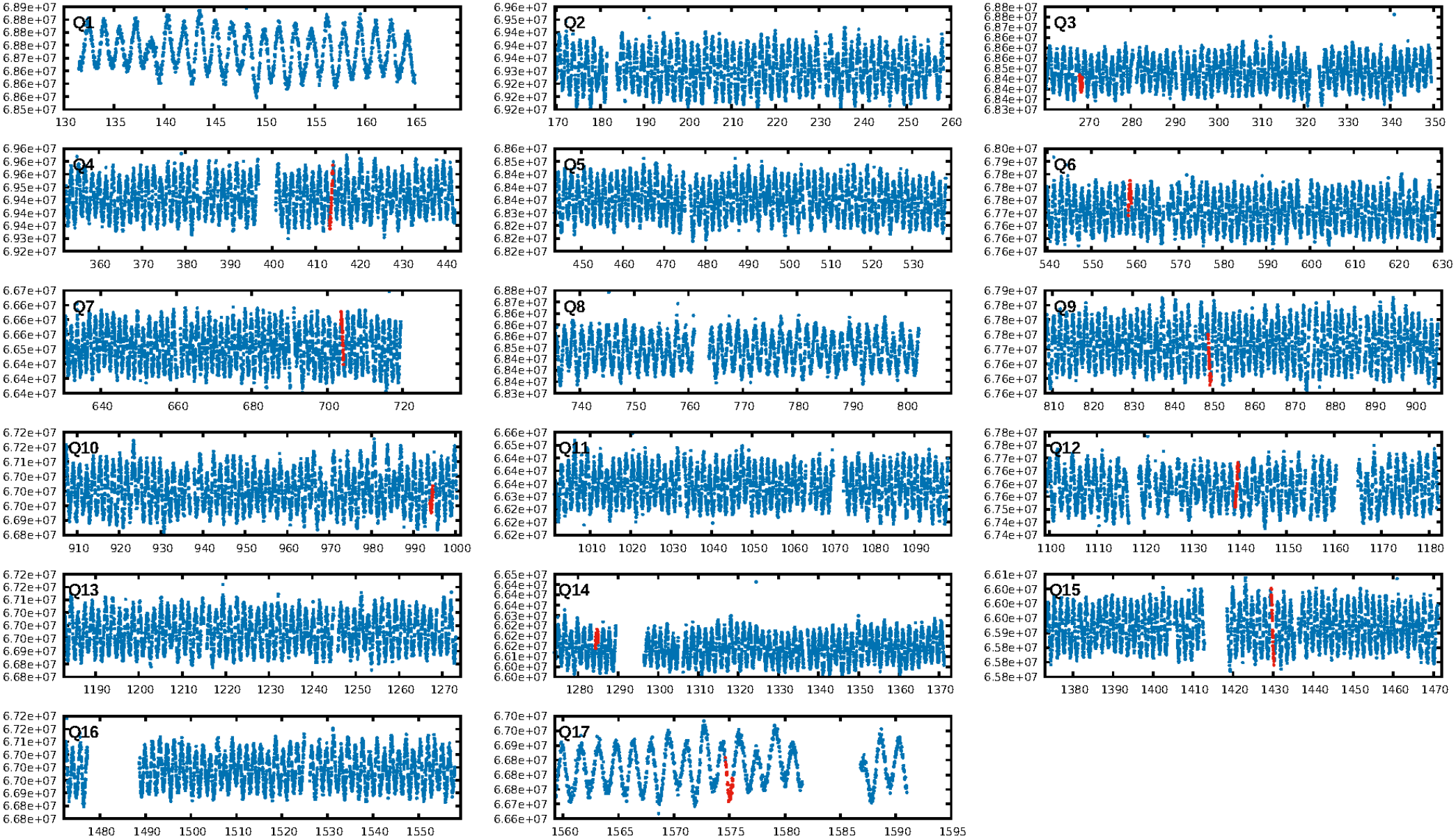
ShortPeriod−sig: 100.0% [34.88σ]
LongPeriod−sig: N/A
ModelChiSquare2−sig: 60.6%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: 1.78e−08
RollingBand−fgt: 1.00 [3/3]
GhostDiagnostic−chr: 2.306

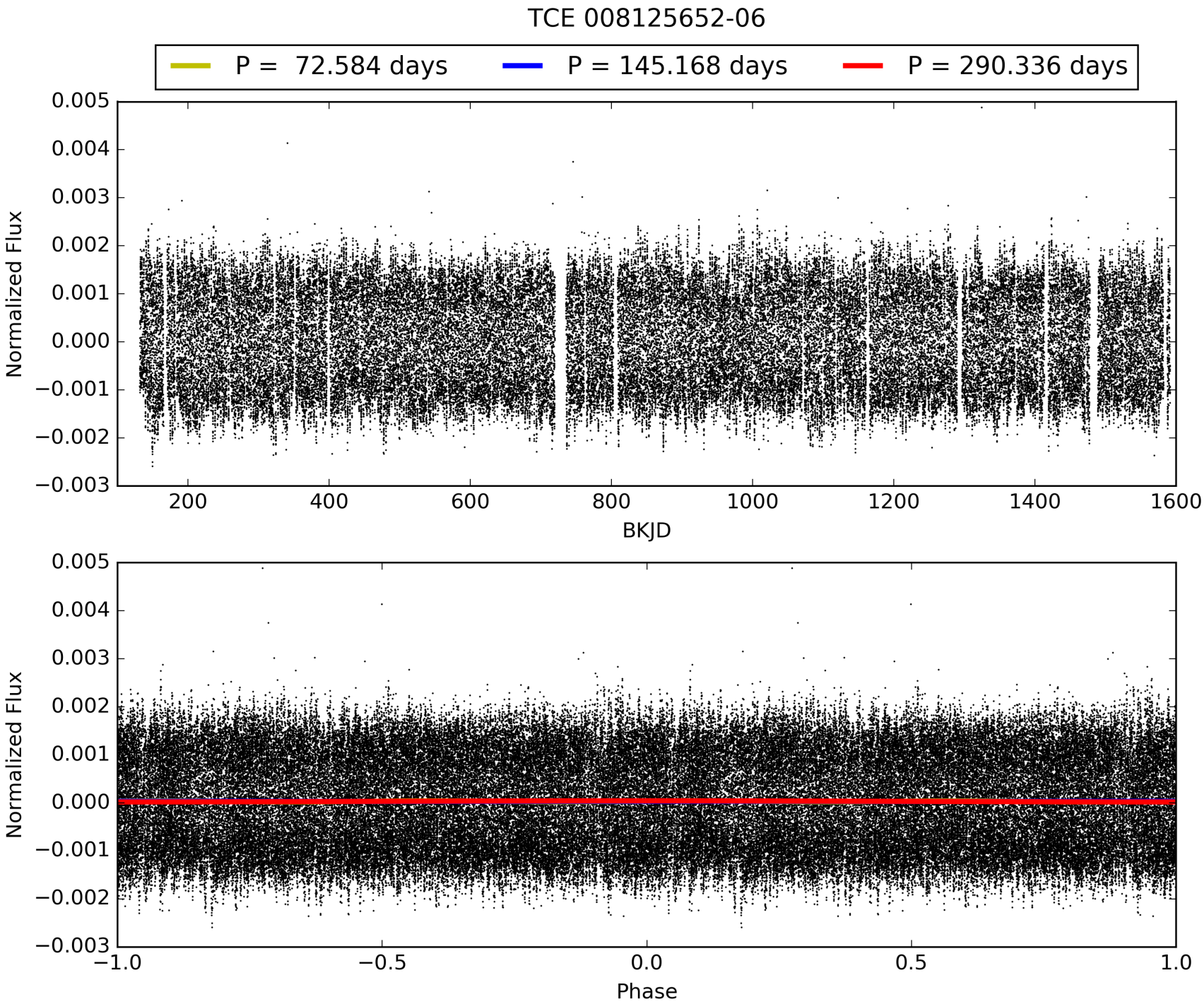
Centroid−sig: 74.9%
Centroid−so: 1.303 arcsec [1.14σ]
OotOffset−rm: 0.092 arcsec [0.13σ]
KicOffset−rm: 0.085 arcsec [0.08σ]
OotOffset−st: 3/3/2/2 [10]
KicOffset−st: 3/3/2/2 [10]
DiffImageQuality−fgm: 0.50 [5/10]
DiffImageOverlap−fno: 0.40 [4/10]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31−Jan−2016 10:48:12 Z

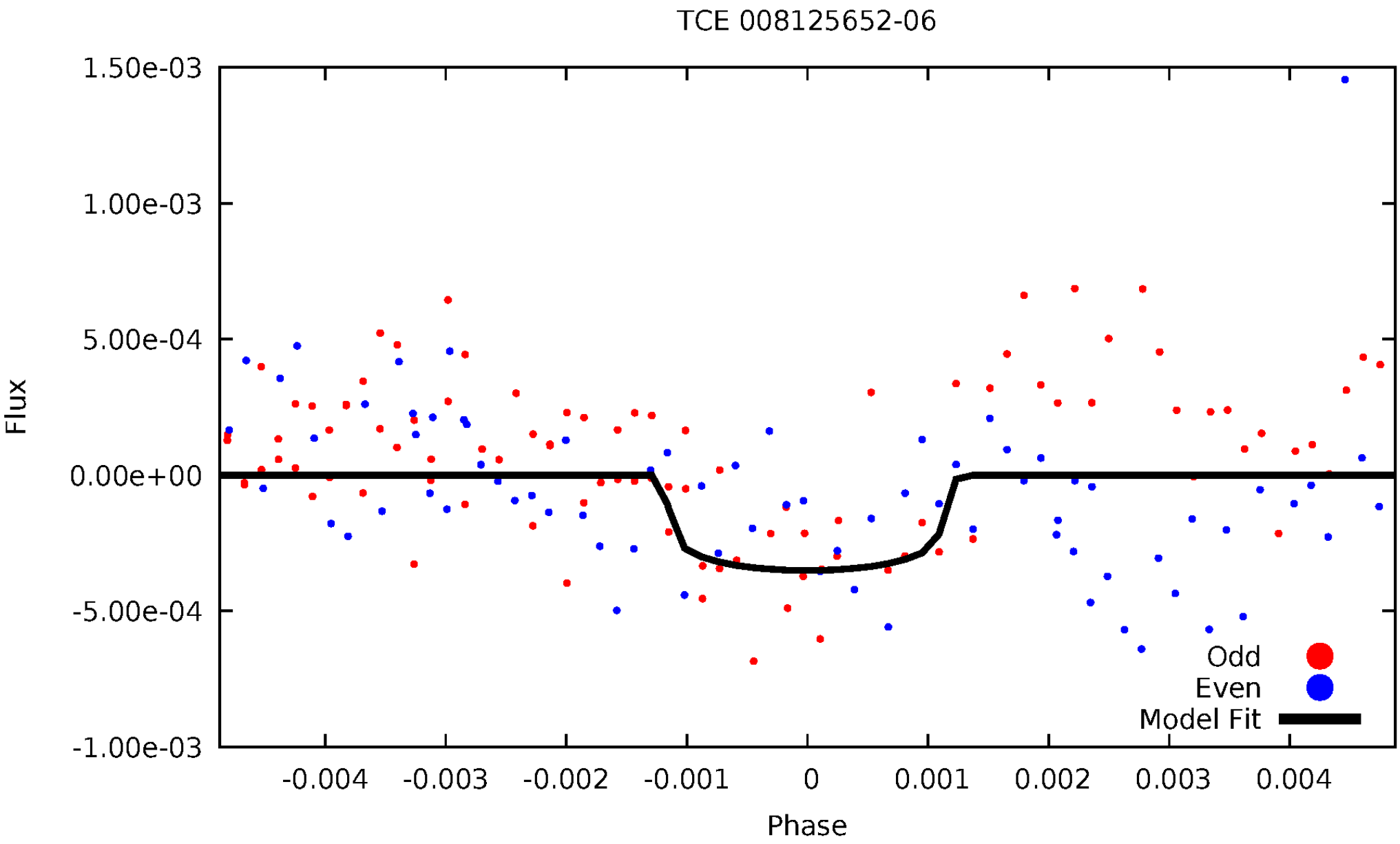
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008125652-06, PDC Light Curves

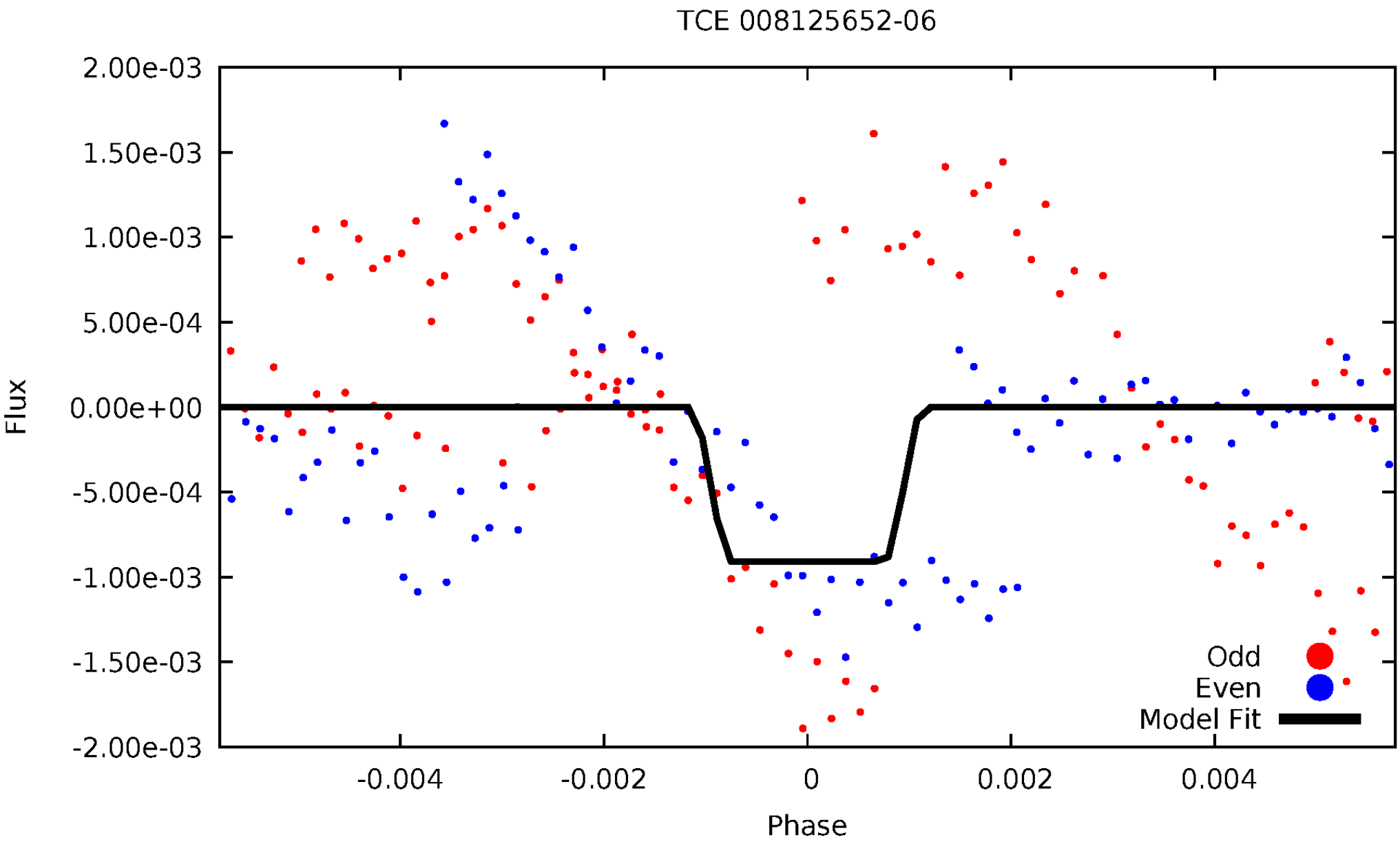



TCE 008125652-06
P = 72.584 days
P = 145.168 days
P = 290.336 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even


TCE 008125652-06
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
Flux
-0.004
-0.003
-0.002
-0.001
0
0.001
0.002
0.003
0.004
Phase
Odd
Even
Model Fit

ALT Odd/Even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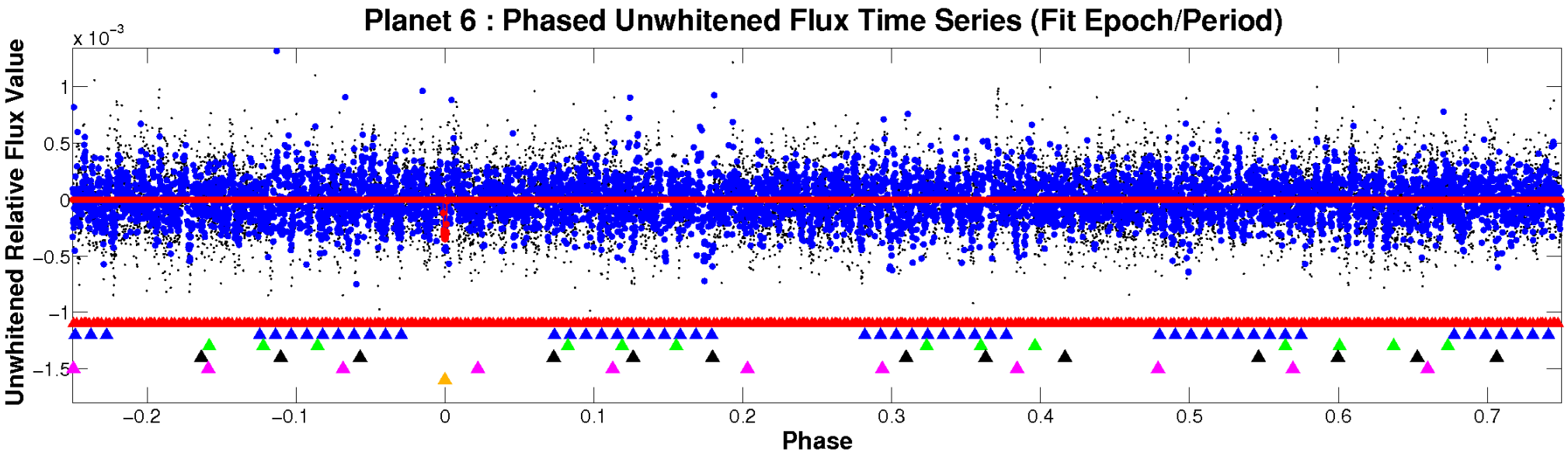
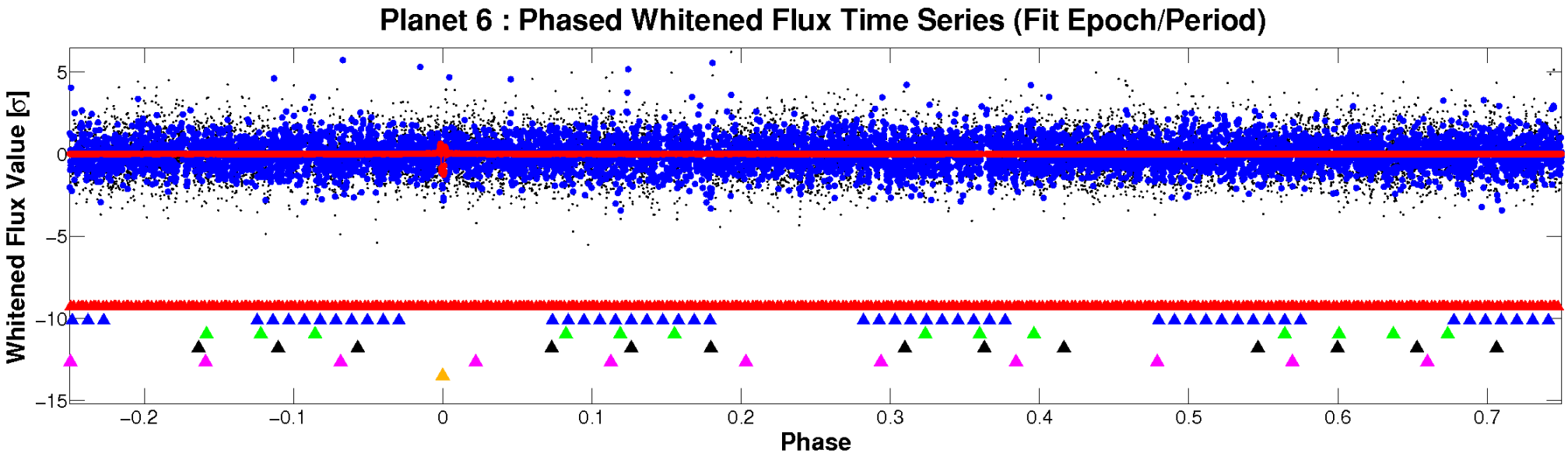
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.004
-0.002
0
0.002
0.004
Phase
Odd
Even
Model Fit

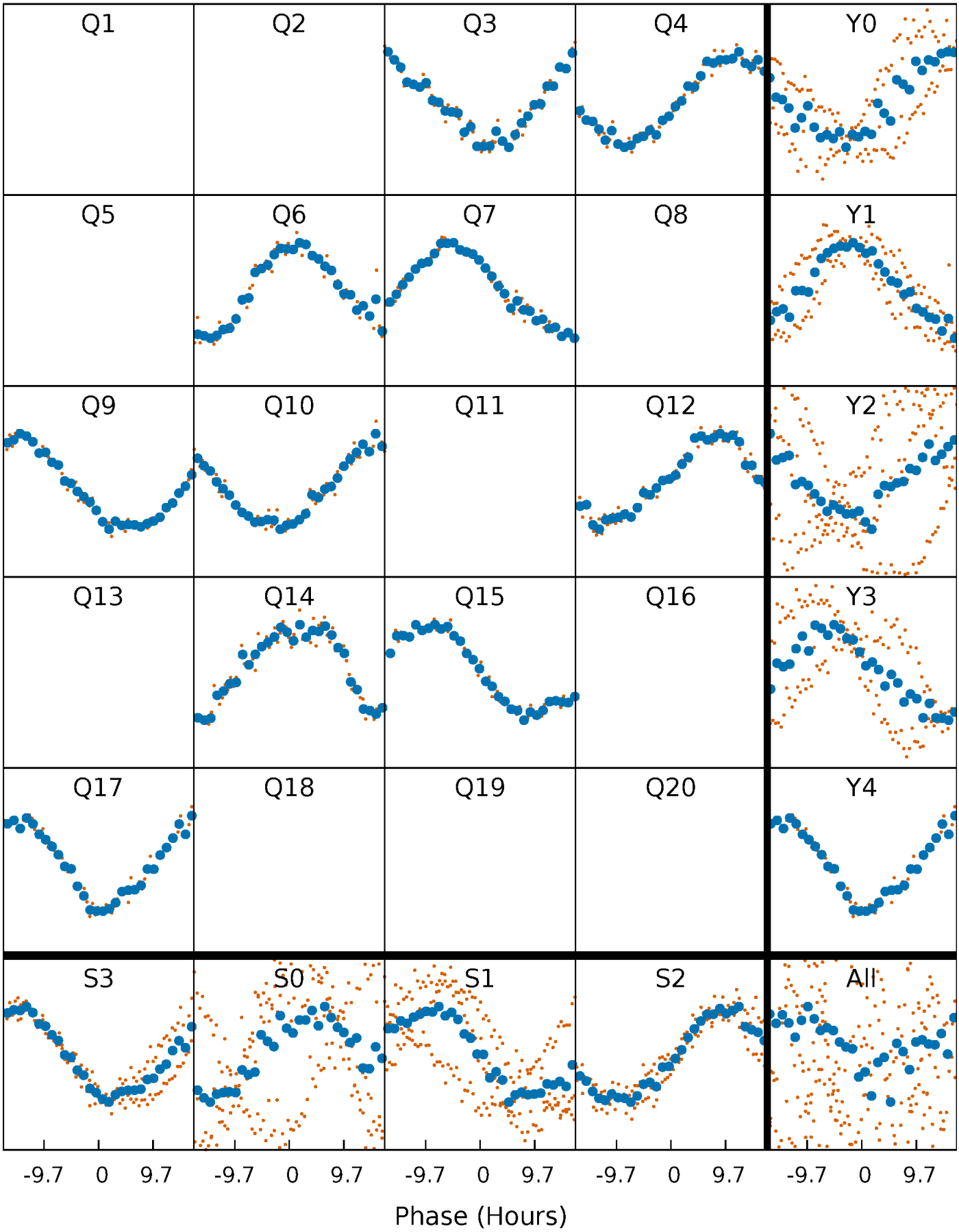
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 008125652-06 P=145.168027 Days T_0=268.471453 (BKJD)



DV Quarter-Phased Transit Curves

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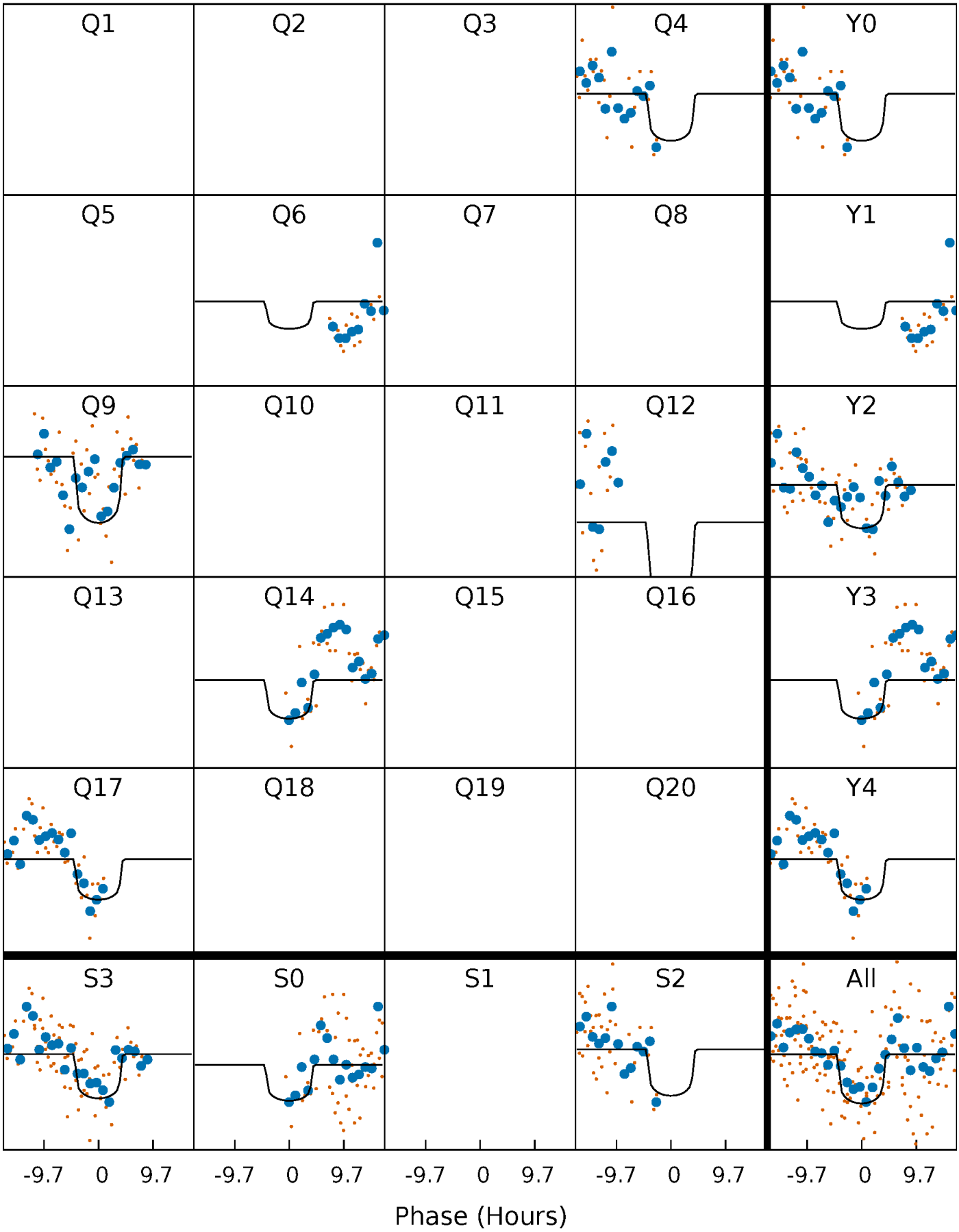
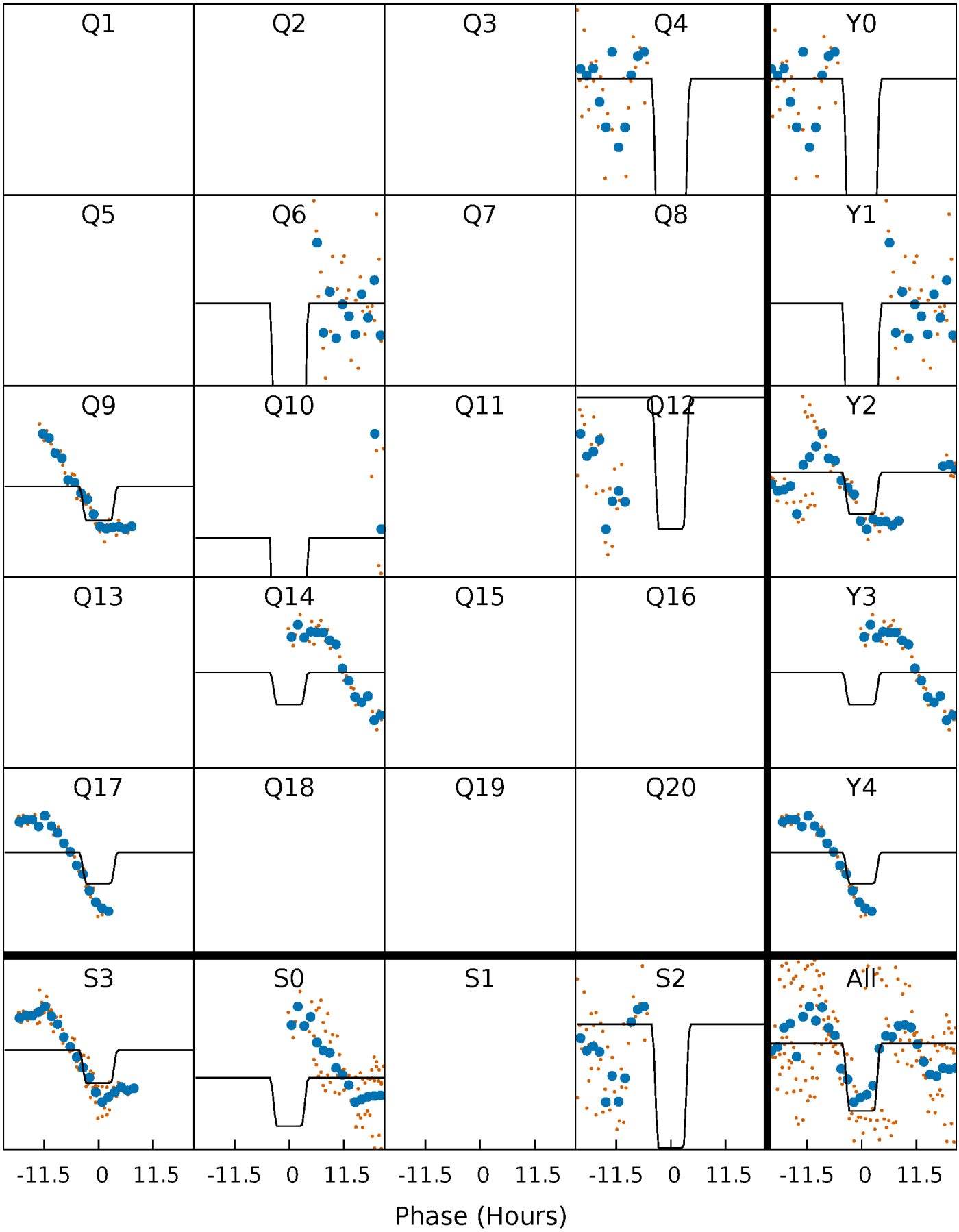


Alt. Detrend Quarter-Phased Transit Curves

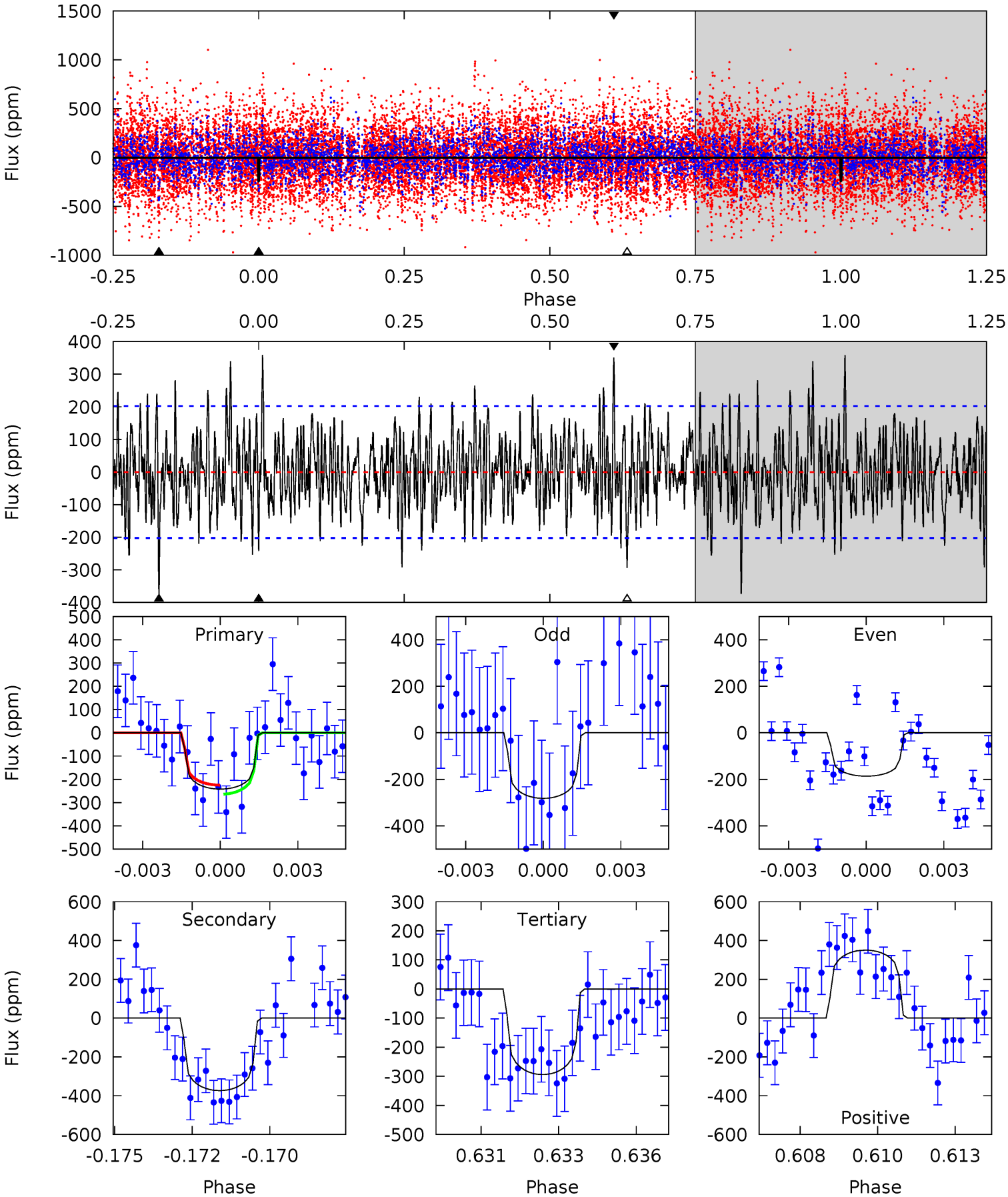
TCE 008125652-06 P=145.147802 Days T_0=268.595261 (BKJD)



DV Model-Shift Uniqueness Test

008125652-06, P = 145.168027 Days, E = 123.303426 Days

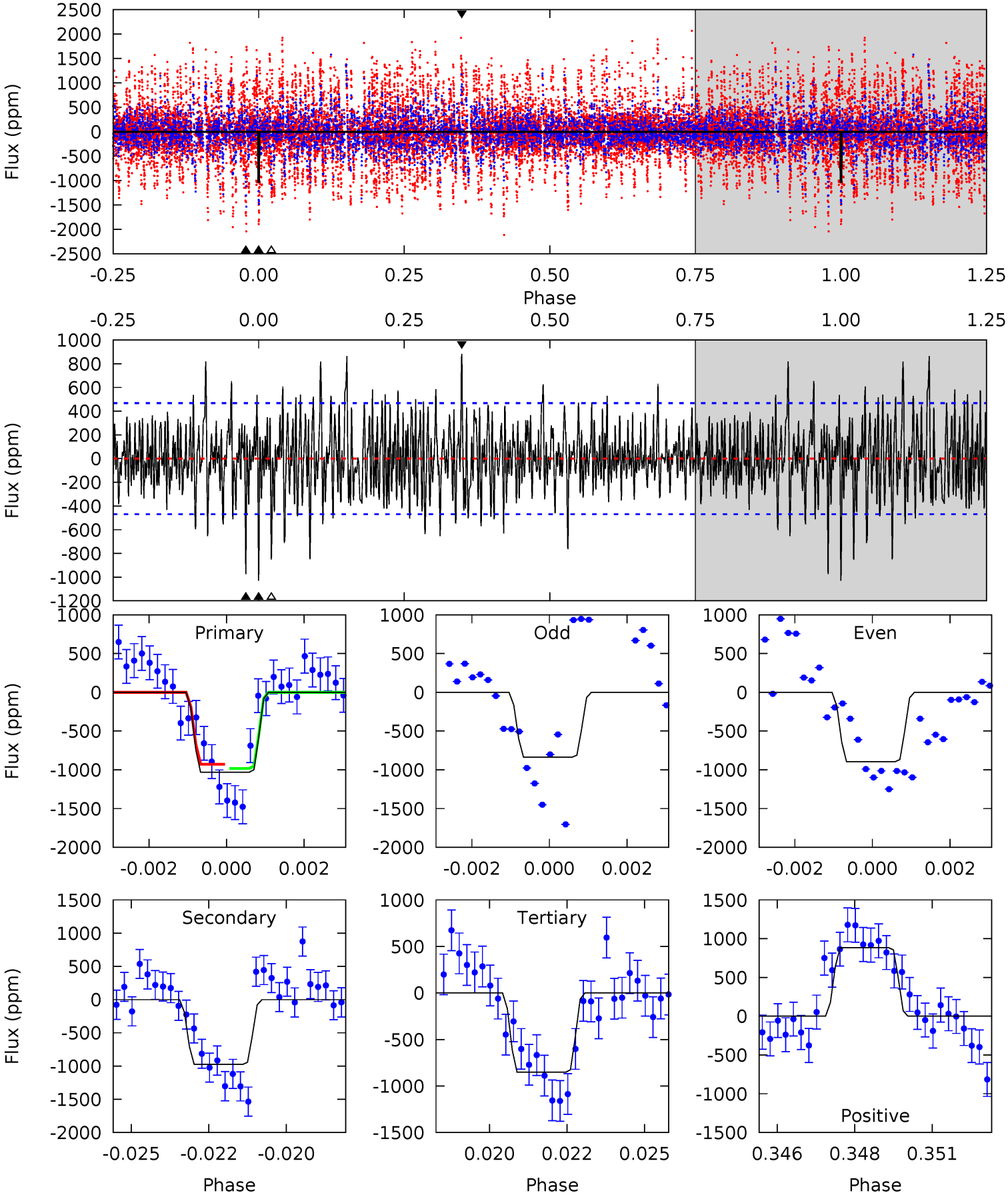
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.32	9.76	7.68	9.15	5.28	3.02	2.52	-1.36	-2.83	2.08	0.61	1.25	0.97	0.49	0.51



Alt Model-Shift Uniqueness Test

008125652-06, P = 145.147802 Days, E = 123.447459 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	11.0	9.65	10.0	5.31	3.06	2.58	2.02	1.67	1.38	1.03	0.32	0.44	0.46	0.32



Stellar Parameters For KIC 008125652

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	M($M_\odot$)	$p_\star$ (g·cm^{-3})
	6292^{+203}_{-225}	$3.791^{+0.488}_{-0.122}$	$-0.160^{+0.300}_{-0.300}$	$2.450^{+0.513}_{-1.281}$	$1.354^{+0.218}_{-0.327}$	$0.130^{+0.716}_{-0.050}$
	+3%/-4%	+13%/-3%	+188%/-188%	+21%/-52%	+16%/-24%	+552%/-38%
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 008125652-06 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-374±38	$4.66^{+2.44}_{-2.14}$	758^{+67}_{-92}	6226^{+2298}_{-951}	3426^{+8020}_{-1932}
Alt.	-974±88	$7.32^{+3.01}_{-2.60}$	764^{+60}_{-92}	6386^{+1399}_{-753}	3646^{+4837}_{-1748}

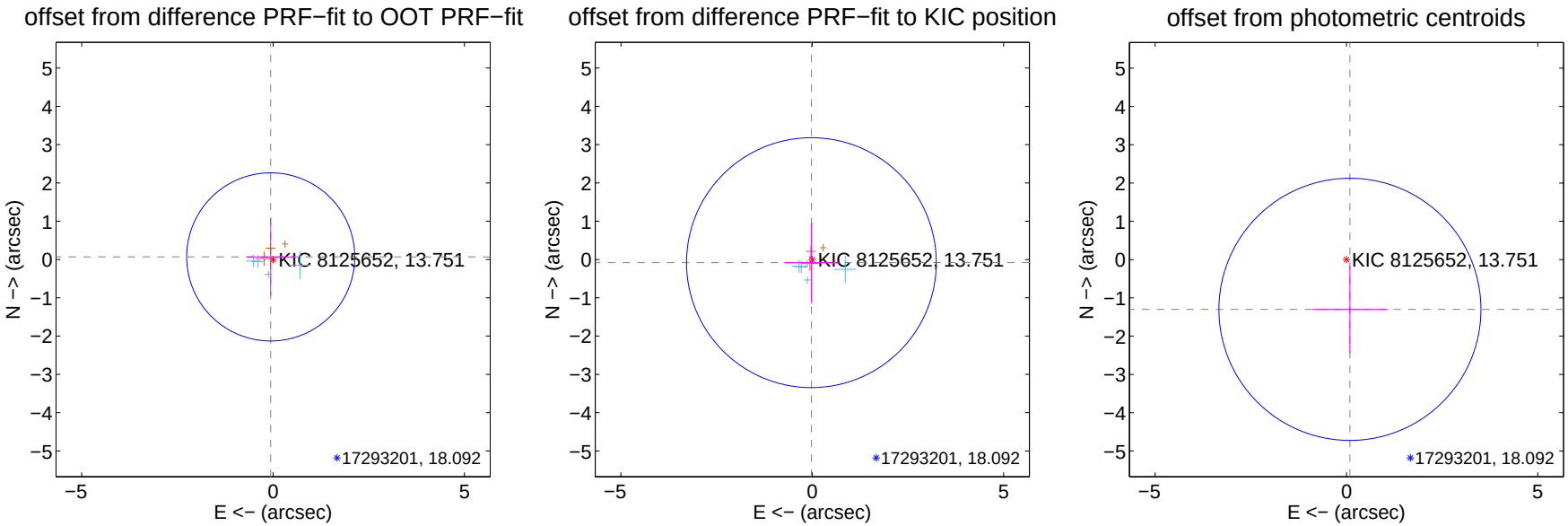
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

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

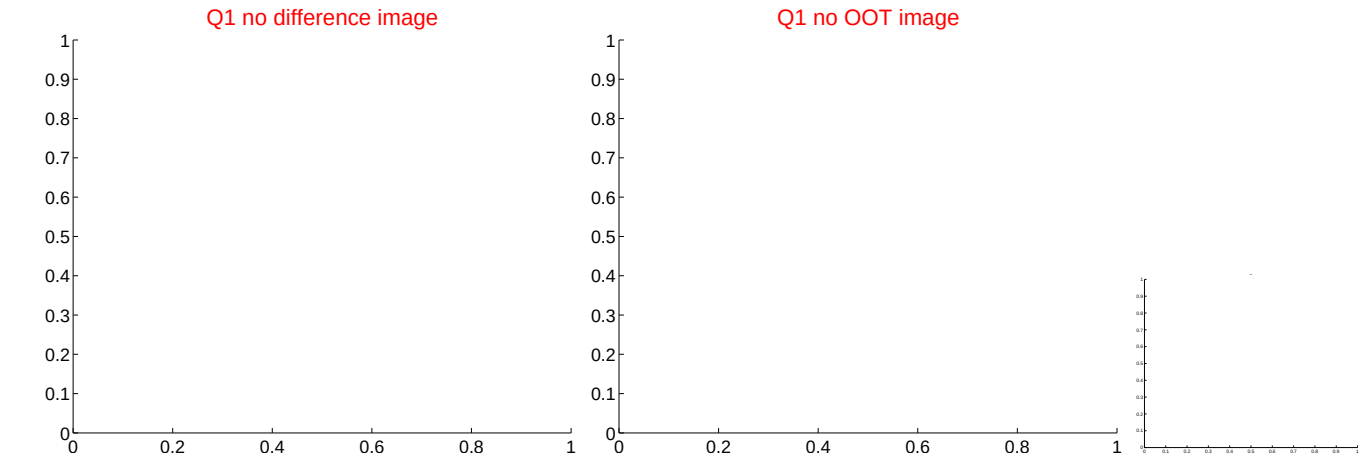
Supplemental centroid analysis for 008125652-06. Kepler magnitude: 13.75. Transit SNR 6.85
There are 5 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

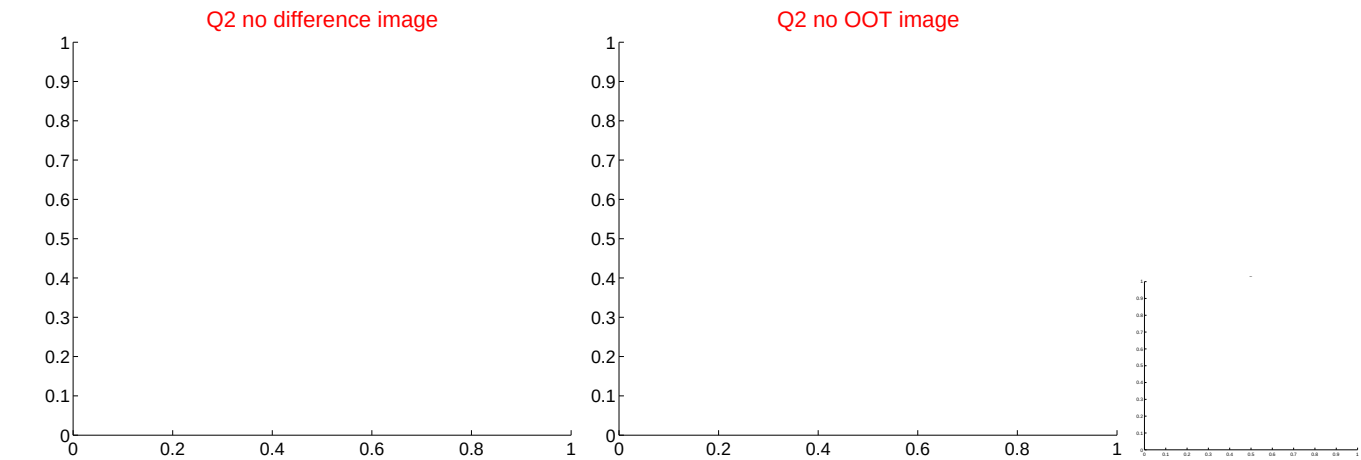
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.092 ± 0.732	0.13	0.063 ± 0.630	0.068 ± 1.010
PRF-fit source offset from KIC position	0.085 ± 1.088	0.08	0.023 ± 0.713	-0.082 ± 1.055
photometric centroid source offset	1.30 ± 1.14	1.14	-0.09 ± 0.98	-1.30 ± 1.14

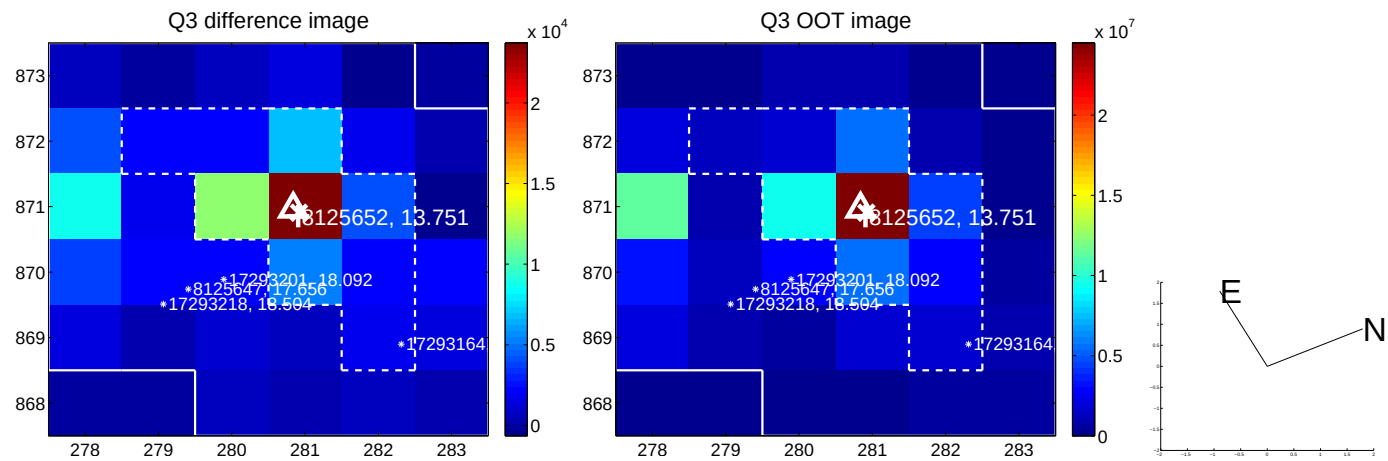


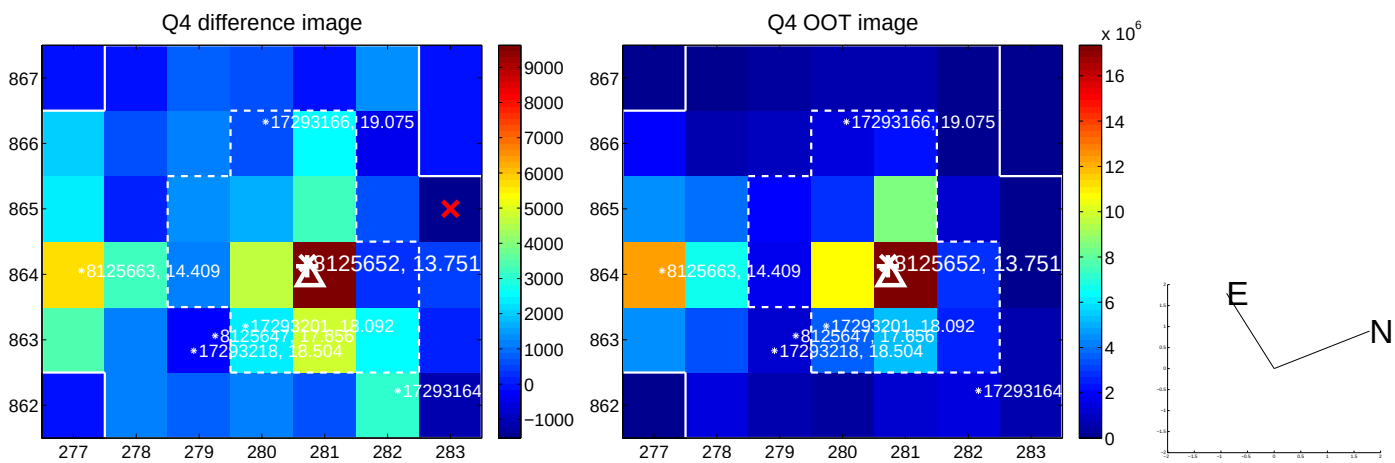
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red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

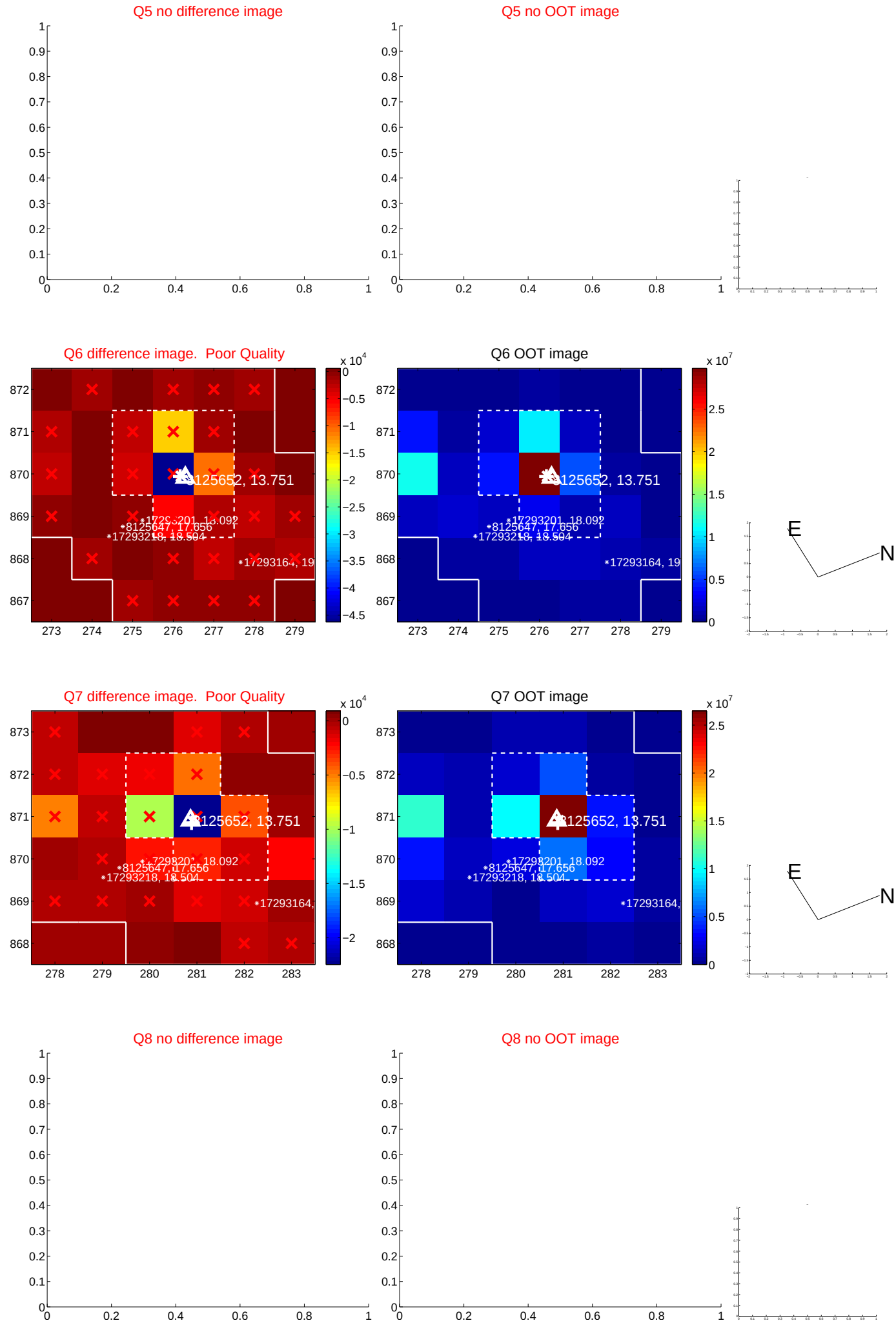




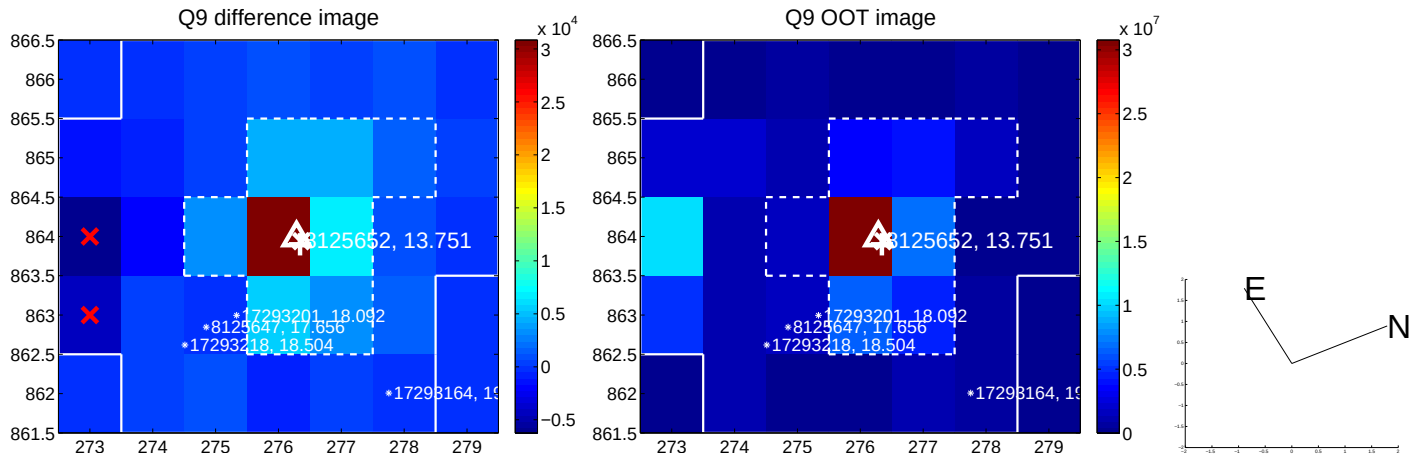


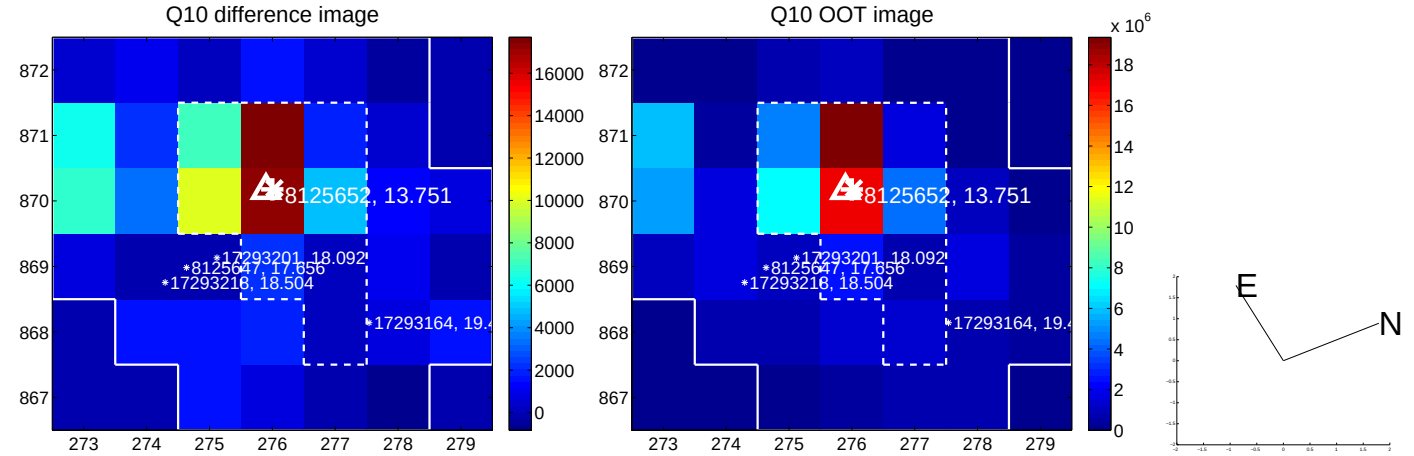


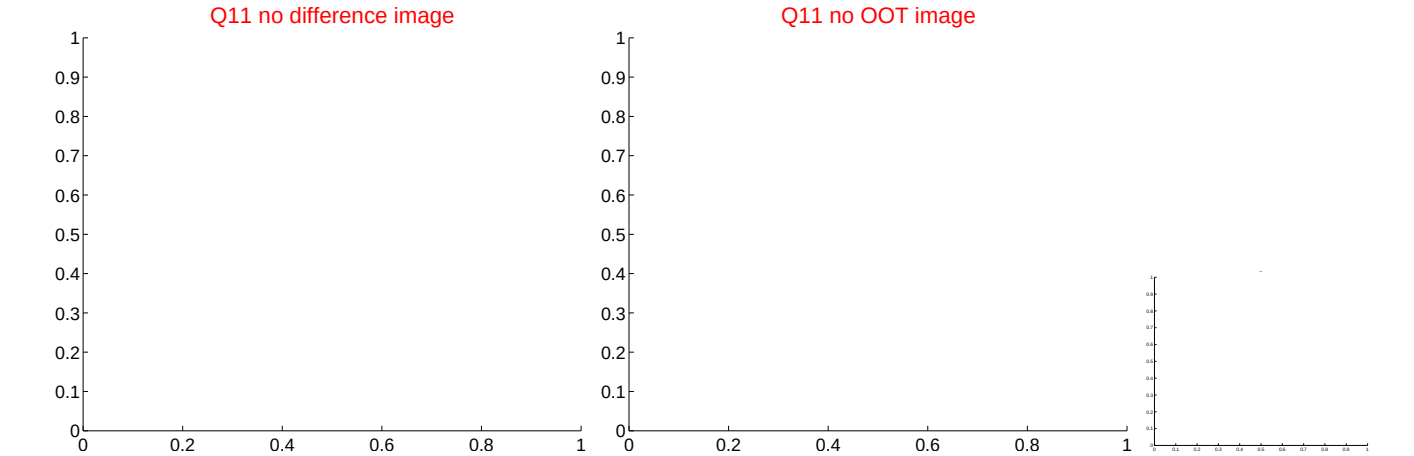
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

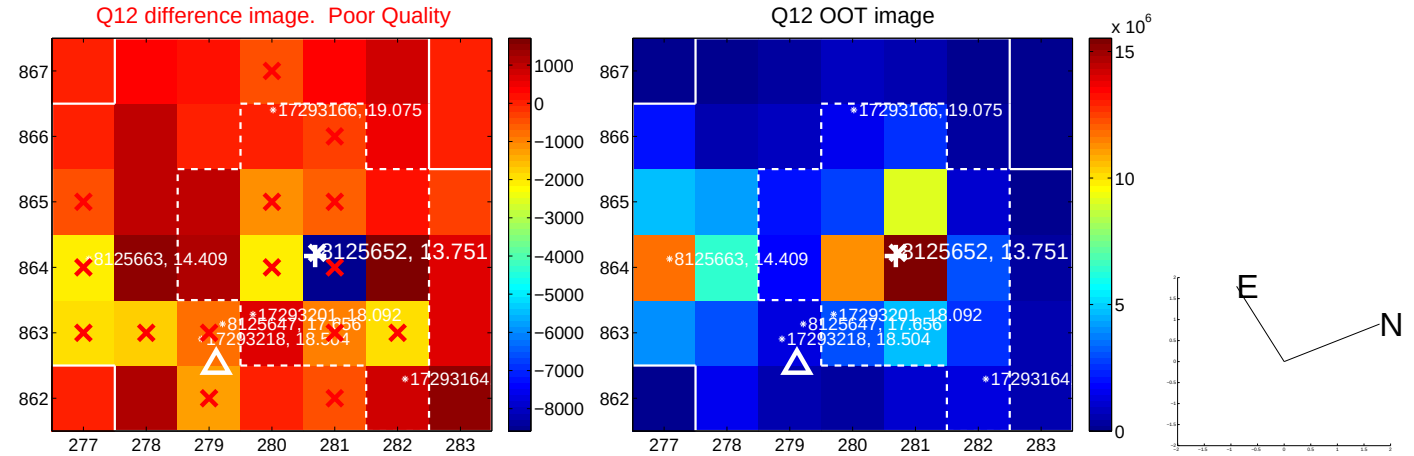


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

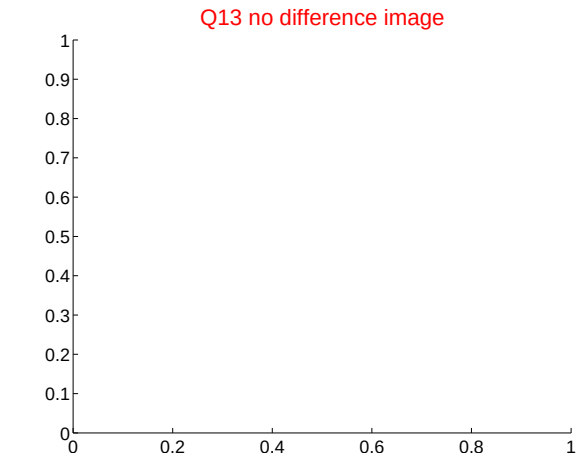


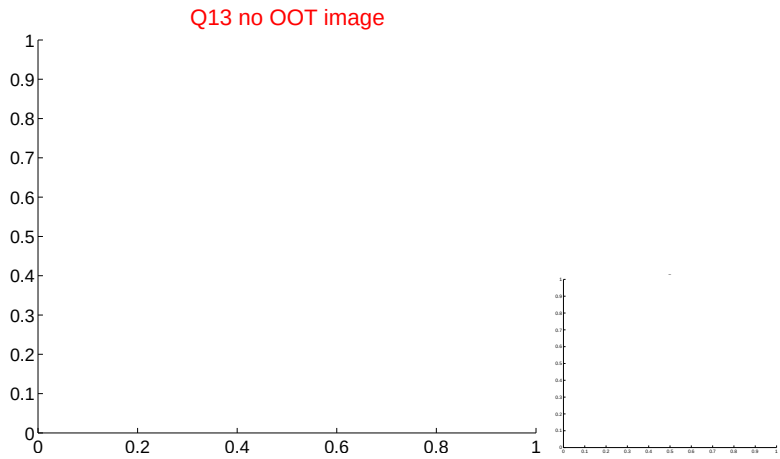


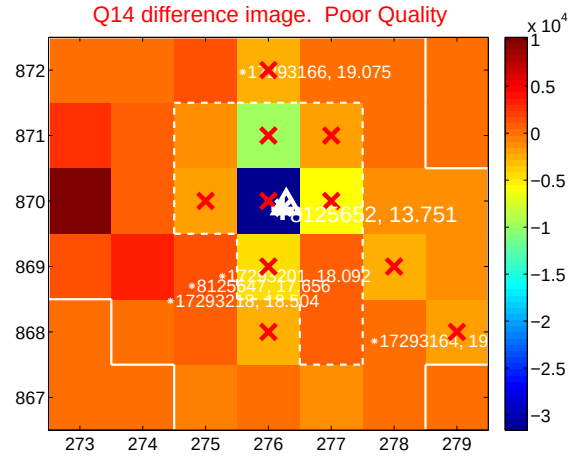


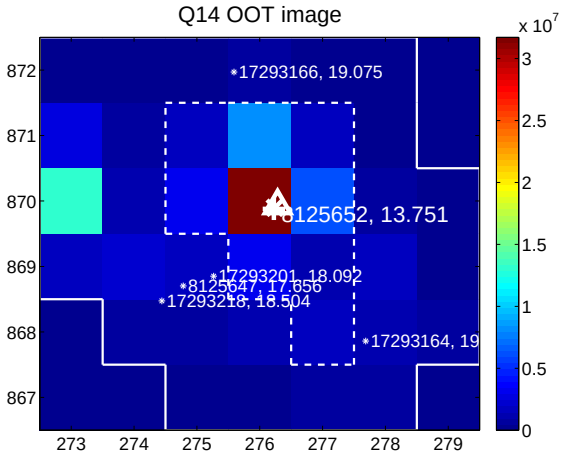


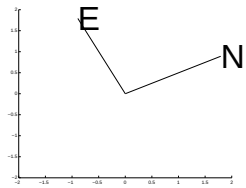
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

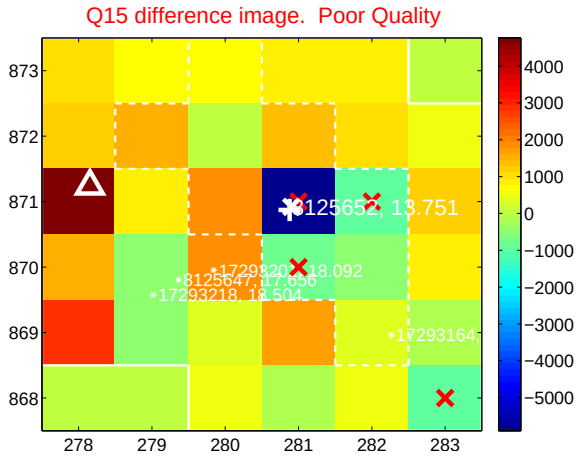


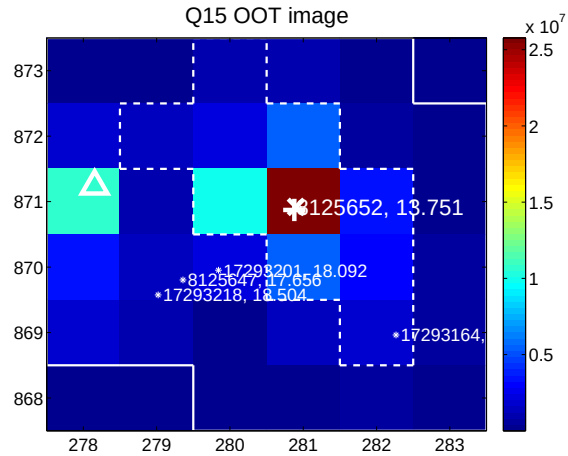


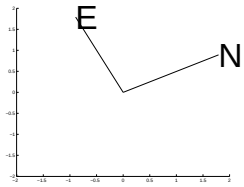


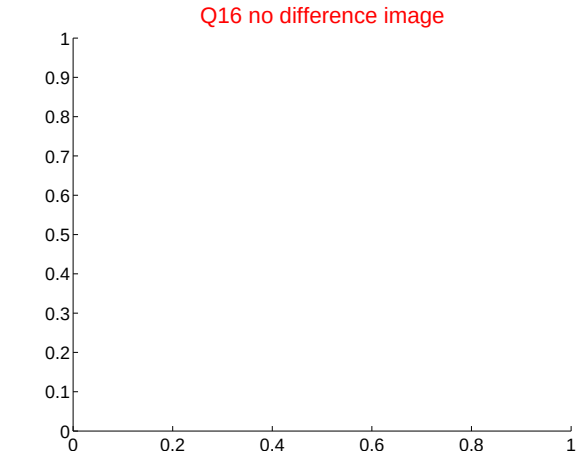


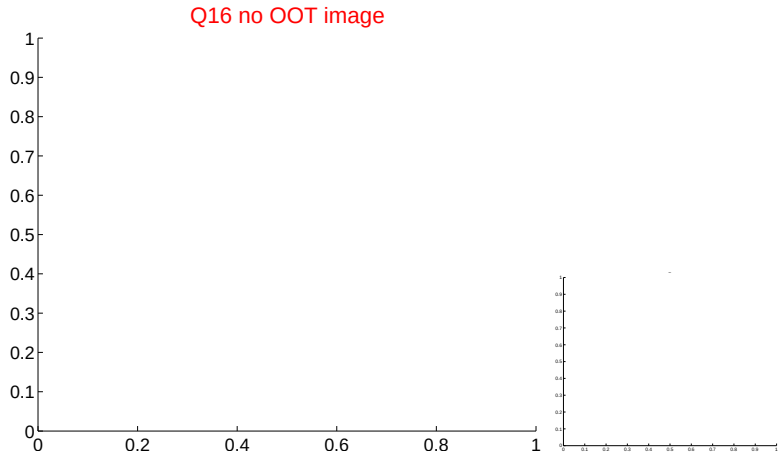




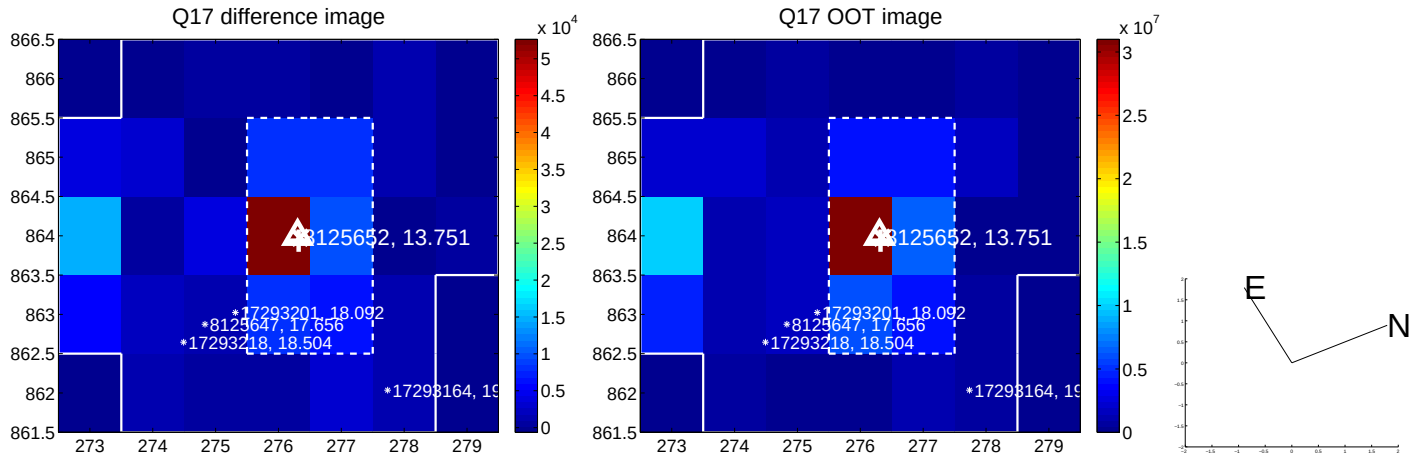


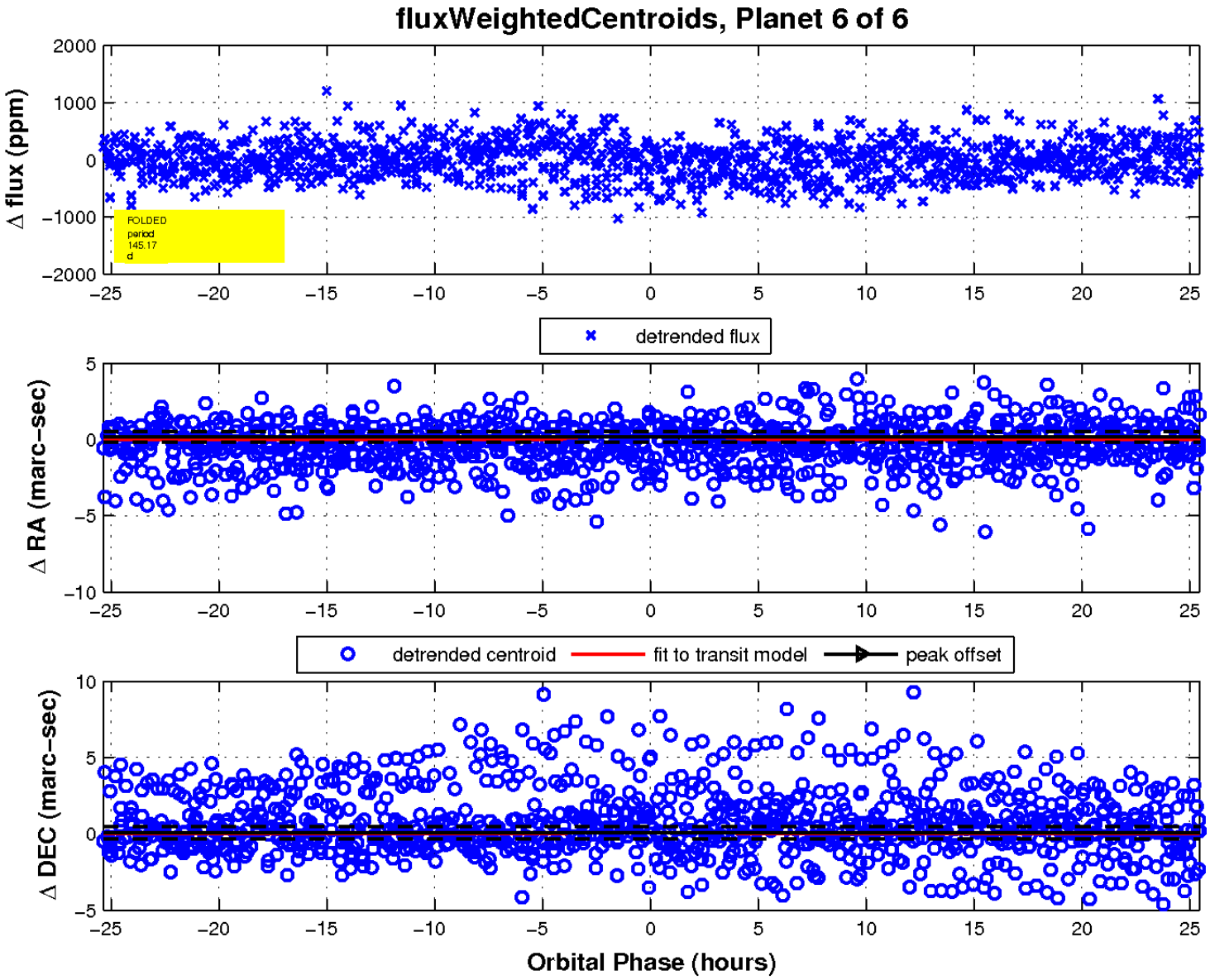




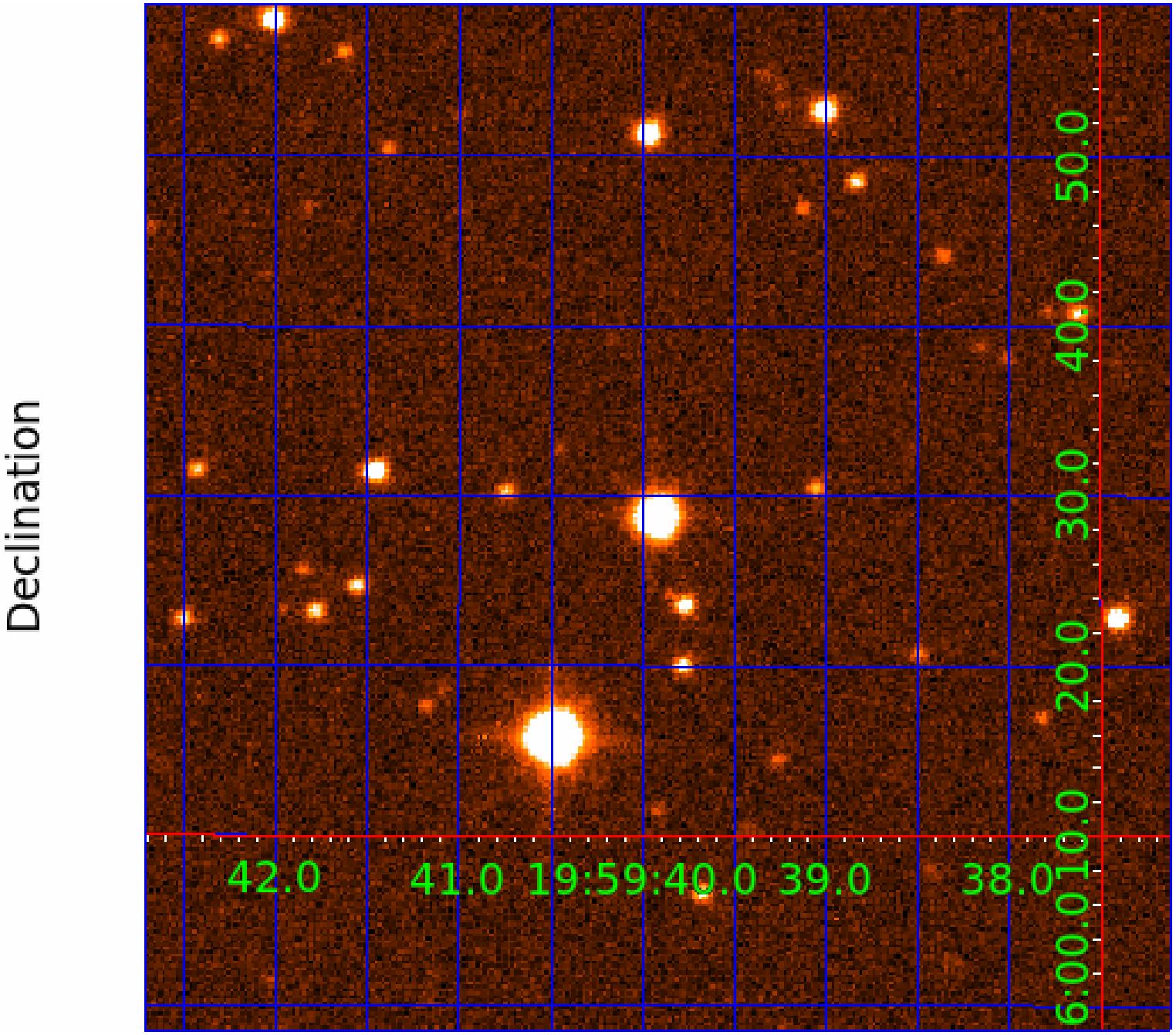


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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